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COUNTERFEIT BOLTS AND FASTENERS

HEARING

BEFORE THE

SUBCOMMITTEE ON
SCIENCE, RESEARCH AND TECHNOLOGY

OF THE

COMMITTEE ON
SCIENCE, SPACE, AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDREDTH CONGRESS

SECOND SESSION

AUGUST 9, 1988

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COUNTERFEIT BOLTS AND FASTENERS

TUESDAY, AUGUST 9, 1988

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,
SUBCOMMITTEE ON SCIENCE, RESEARCH AND TECHNOLOGY,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:40 o'clock a.m., in Room 2325, Rayburn House Office Building, the Honorable Doug Walgren [chairman of the subcommittee] presiding.

Mr. WALGREN. The committee shall come to order.

Today we receive testimony on two bills offering solutions to various and extremely serious kinds of fraud perpetrated on American manufacturers, American builders and the American public.

These two bills are H.R. 5051, the Fastener Quality Assurance Act of 1988, introduced by Mr. Dingell, and H.R. 5120, the Standardization of Measurement Act of 1988, introduced by Mr. Roe.

Since the early 1970's, millions of substandard and mismarked high strength bolts have been introduced into our country's industries. These high strength fasteners and bolts marked with symbols which indicate that they meet certain standards regarding quality, reliability, durability and strength have been tested and found to fail in alarming percentages. In some instances, defective bolts have been found through testing or have failed during installation. Tragically, some have been installed in critical locations where their failure has resulted in the loss of life or property.

When public safety and welfare are at stake, and particularly with respect to fasteners that find their way into military uses where the lives of American servicemen and women are put on the line, Congress certainly has the responsibility to intervene.

My colleagues of the Energy and Commerce Committee have done an excellent job documenting specific loss of equipment, facilities, and injuries and lives due to these bolts. Now that the extent of that problem has been brought to public attention and is understood, we must determine the methods and means available to rid our nation of this kind of plague.

The solution to this problem is found in an area where Committee responsibilities overlap. It is found, in part, within the Science Committee's responsibility for standardization of weights and measures in the National Bureau of Standards, and partially within the Committee on Energy and Commerce's regulatory jurisdiction.

We are committed to working together with the Energy and Commerce Committee to develop the best possible legislative solution. The Science, Research and Technology Subcommittee there-

fore will examine both these bills from two perspectives, the standards involved and the systems in place to test these standards.

I would like to make clear to our witnesses that this subcommittee feels that both the Voluntary Consensus Standards organizations and the National Bureau of Standards do an excellent job in their traditional roles of developing consensus on standards of products and measurement and making sure that the research is in place to ensure the integrity of these standards. We don't want to be involved in fixing a system which is not broken.

Your comments today will be appreciated as we gather information on how to address what is an extremely serious problem in a manner consistent with the current standards practices in this country.

Our overriding interest is to work with the Committee on Energy and Commerce to develop legislation which is cost effective and efficient, and which eliminates the potential harm caused by counterfeit bolts. Therefore, I urge the witnesses to address their remarks to the most appropriate response which Congress could give to this problem. Whether through safeguards, testing or criminal penalties, our success will be measured just like these bolts in the public acceptance of products and equipment which implement the highest quality hardware available.

[The prepared opening statement of Hon. Doug Walgren follows:]

OPENING REMARKS OF THE
HONORABLE DOUG WALGREN (D-PA)
ON HEARING ON
COUNTERFEIT BOLTS AND FASTENERS

AUGUST 9, 1988

TODAY WE RECEIVE TESTIMONY ON TWO BILLS OFFERING SOLUTIONS TO A VERY SERIOUS FRAUD PERPETRATED ON AMERICAN MANUFACTURERS, BUILDERS AND THE PUBLIC. THEY ARE H.R. 5051, THE FASTENER QUALITY ASSURANCE ACT OF 1988 BY MR. DINGELL AND H.R. 5120, THE STANDARDIZATION OF MEASUREMENT ACT OF 1988 BY MR. ROE. SINCE THE EARLY 1970'S, MILLIONS OF SUBSTANDARD AND MISMARKED HIGH STRENGTH BOLTS HAVE BEEN INTRODUCED INTO OUR NATION'S INDUSTRIES. THESE HIGH STRENGTH FASTENERS AND BOLTS, MARKED WITH SYMBOLS WHICH INDICATE THEY MEET CERTAIN STANDARDS REGARDING QUALITY, RELIABILITY, AND DURABILITY, HAVE BEEN TESTED AND FOUND TO FAIL IN ALARMING PERCENTAGES. IN SOME INSTANCES, DEFECTIVE BOLTS HAVE BEEN FOUND THROUGH TESTING OR HAVE FAILED DURING INSTALLATION. TRAGICALLY, SOME HAVE BEEN INSTALLED IN CRITICAL LOCATIONS WHERE THEIR FAILURE HAS RESULTED IN LOSS OF LIFE OR PROPERTY.

WHEN PUBLIC SAFETY AND WELFARE ARE AT STAKE, WHETHER THE ISSUE IS AN ABOVE GROUND OIL TANK SPLITTING IN HALF OR A MILITARY M-60 TANK FALLING APART IN THE FIELD, CONGRESS MAY WELL HAVE THE RESPONSIBILITY TO INTERVENE. MY COLLEAGUES ON THE ENERGY AND COMMERCE COMMITTEE HAVE DONE AN EXCELLENT JOB DOCUMENTING SPECIFIC LOSS OF EQUIPMENT, FACILITIES, AND LIVES DUE TO THESE BOLTS. NOW THAT THE EXTENT OF THE PROBLEM IS UNDERSTOOD, WE MUST DETERMINE THE METHODS AND MEANS AVAILABLE TO RID OUR NATION OF

THIS PLAGUE OF BAD BOLTS.

THE SOLUTION TO THIS PROBLEM IS FOUND IN AN AREA WHERE COMMITTEE RESPONSIBILITIES OVERLAP. IT IS FOUND IN PART WITHIN THE SCIENCE COMMITTEE'S RESPONSIBILITY FOR STANDARDIZATION OF WEIGHTS AND MEASURES AND THE NATIONAL BUREAU OF STANDARDS, AND PARTIALLY WITHIN THE COMMITTEE ON ENERGY AND COMMERCE'S REGULATORY JURISDICTION. WE ARE COMMITTED TO WORKING TOGETHER TO DEVELOP THE BEST POSSIBLE LEGISLATION. THE SCIENCE, RESEARCH, AND TECHNOLOGY SUBCOMMITTEE, THEREFORE, WILL EXAMINE H.R. 5051 AND H.R. 5120 FROM TWO PERSPECTIVES: THE STANDARDS INVOLVED, AND THE SYSTEMS IN PLACE TO TEST THESE STANDARDS.

I WOULD LIKE TO MAKE CLEAR TO OUR WITNESSES THAT THIS SUBCOMMITTEE FEELS THAT BOTH THE VOLUNTARY CONSENSUS STANDARDS ORGANIZATIONS AND THE NATIONAL BUREAU OF STANDARDS DO A YEOMAN'S JOB IN THEIR TRADITIONAL ROLES OF DEVELOPING CONSENSUS ON STANDARDS OF PRODUCTS AND MEASUREMENT AND MAKING SURE THE RESEARCH IS IN PLACE TO ENSURE THE INTEGRITY OF THESE STANDARDS. WE ARE NOT INTERESTED IN FIXING A SYSTEM WHICH IS NOT BROKEN. YOUR COMMENTS TODAY WILL BE APPRECIATED AS WE GATHER INFORMATION ON HOW TO ADDRESS A SERIOUS PROBLEM IN A MANNER WHICH IS CONSISTENT WITH CURRENT STANDARDIZATION PRACTICES IN THIS COUNTRY.

OUR OVERRIDING INTEREST IS TO WORK WITH THE COMMITTEE ON ENERGY AND COMMERCE TO DEVELOP LEGISLATION WHICH IS COST-EFFECTIVE AND

EFFICIENT, AND WHICH ELIMINATES THE POTENTIAL HARM CAUSED BY THESE BOLTS. THEREFORE, I URGE THE WITNESSES TO ADDRESS THEIR REMARKS TO THE MOST APPROPRIATE RESPONSES WHICH CONGRESS CAN IMPLEMENT, WHETHER THROUGH SAFEGUARDS, TESTING, OR CRIMINAL PENALTIES. OUR SUCCESS WILL BE MEASURED, JUST LIKE THESE BOLTS, IN THE PUBLIC'S ACCEPTANCE OF PRODUCTS AND EQUIPMENT WHICH IMPLEMENT THE HIGHEST QUALITY HARDWARE AVAILABLE.

Mr. WALGREN. With that for an opening comment, I'd like to recognize the gentlelady from Rhode Island on the minority side.

Ms. Schneider?

Ms. SCHNEIDER. Mr. Chairman, I would appreciate it if I could have my statement included in the record in its entirety.

Mr. WALGREN. Without objection.

[The prepared opening statements of Hon. Claudine Schneider and Hon. Sherwood Boehlert follow:]

CLAUDINE SCHNEIDER
OPENING STATEMENT
COUNTERFEIT BOLTS AND FASTENERS HEARING
AUGUST 9, 1988

MOUNTING FOREIGN COMPETITION HAS TAKEN MANY FORMS. PERHAPS ONE OF THE MOST INSIDIOUS IS THE FRAUDULANT MARKING OF DEFECTIVE BOLTS AND FASTENERS TO MISREPRESENT THEIR ACTUAL GRADES AND PROPERTIES.

THE PART OF THE BOLT AND FASTENER INDUSTRY THAT HAS BEEN MOST AFFLICTED BY THIS PRACTICE IS THE PART WHICH SUPPLIES BOLTS THAT ARE NEEDED FOR THEIR STRENGTH -- SUCH AS IN THE CONSTRUCTION OF AIRPLANES, CARS, WEAPONS, AND NUCLEAR POWER PLANTS. IT IS AN INTOLERABLE SITUATION THAT CHEATS THE CONSUMER, RIPS-OFF BUSINESS, AND THREATENS OUR DEFENSE.

HOWEVER, UNFAIR FOREIGN COMPETITION IN THE BOLT AND FASTENER INDUSTRY HAS TAKEN OTHER FORMS AS WELL. I WOULD LIKE TO BRING ONE SUCH CASE TO THE ATTENTION OF THE SUBCOMMITTEE.

FOUNDED IN 1882, BELL FASTENERS IS A COMPANY THAT SUPPLIES CORROSION RESISTENT FASTENERS -- MAINLY STAINLESS STEEL -- THROUGH DISTRIBUTION CENTERS LOCATED THROUGHOUT THE U.S. BELL FASTENERS USED TO EMPLOY ABOUT 100 WORKERS TO MANUFACTURE ITS OWN FASTENERS.

HOWEVER, DUE TO THE RISING DOMESTIC COSTS OF ITS PRINCIPLE RAW MATERIAL, NAMELY SPECIALTY STEEL, THEY HAVE BEEN FORCED TO SHIFT AWAY FROM MANUFACTURING THEIR OWN FASTENERS TO IMPORTING FASTENERS MANUFACTURED IN OTHER COUNTRIES FOR DISTRIBUTION IN THE U.S.

MORE RECENTLY, EVEN THIS REVISED MARKET POSITION HAS BEEN THREATENED BY THE AGGRESSIVE AND DUBIOUS TACTICS OF FOREIGN SUPPLIERS, IN THIS CASE, A COMPANY CALLED BELLSTAR LOCATED IN TAIWAN. BELLSTAR IS NOT ONLY ACTIVELY INVOLVED IN THE PURSUIT OF BELL FASTENERS' DOMESTIC MARKET SHARE, BUT THEY ARE TOTALLY COPYING BELL FASTENERS' PROMOTION MATERIALS TO USE IN THIS EFFORT.

THIS IS THE CASE OF THE COUNTERFEIT BOLTS AND FASTENERS BROCHURE. IF YOU WILL EXAMINE THESE TWO PAMPHLETS YOU WILL NOTICE THEY ARE ALMOST EXACTLY THE SAME. UNFORUNATELY, TAIWAN DOES NOT RECOGNIZE U.S. COPYRIGHTS IN THIS AREA. (HAND OUT MATERIALS)

INCIDENTLY, THE NAME OF THE TAIWAN COMPANY, BELLSTAR, IS A COMBINATION OF THE NAMES OF THE TWO U.S. LEADING SUPPLIERS OF NONCORROSIVE FASTENERS -- BELL FASTENERS AND STAR FASTENERS.

I AM NOT CHARGING THAT BELLSTAR HAS COUNTERFEITED BOLTS. ALTHOUGH THIS DEPLORABLE PRACTICE COULD ALSO HAPPEN TO THE NONCORROSIVE FASTENER INDUSTRY, MOST OF THE INCIDENTS THAT HAVE BEEN REPORTED HAVE BEEN OTHER KINDS OF FASTENERS.

WHAT I AM CLAIMING IS THAT THE U.S. FACES VERY TOUGH OVERSEAS COMPETITORS WHO WILL STOP AT NOTHING TO TAKE AWAY OUR MARKETS SHARES.

THE JEWELRY INDUSTRY IN RHODE ISLAND HAS SUFFERED SIMILAR PROBLEMS WITH JEWELRY DESIGNS BEING COPIED BY ASIAN COMPETITORS. IT IS TIME FOR THE U.S. TO GET TOUGH TOO.

I APPLAUD THE WORK OF THIS SUBCOMMITTEE TO EXAMINE THIS COMPLEX AND DIFICULT ISSUE AND URGE THE MEMBERS OF THIS SUBCOMMITTEE TO UNDERTAKE A BROAD INVESTIGATION OF THE PROBLEM OF UNFAIR TRADE PRACTICES AFFECTING THE U.S. BOLTS AND FASTENER INDUSTRY.

HON. SHERWOOD BOEHLERT (R-NY)
OPENING STATEMENT
HEARING ON COUNTERFEIT BOLTS
August 9, 1988

Mr. Chairman:

This morning we are reviewing two very different bills that seek to address the same, serious problem -- the danger posed by inferior nuts and bolts.

This is one of those rare hearings to which I come with no predisposition or loyalty to either bill, and I am open to all suggestions.

One bill, H.R. 5051, is based on the premise that the presence of counterfeit and substandard fasteners is a result of fraud. It, therefore, sets up a system to inspect and trace fasteners and imposes criminal penalties on those who would violate that system.

The other bill, H.R. 5120, assumes that the problem is not so much a lack of honesty as a lack of information. It, therefore, sets up a strict system to develop new standards for fasteners.

I hope that, for starters, our witnesses will let us know which of these premises they view as more valid.

I look forward to the testimony.

Ms. SCHNEIDER. Let me say that your comment was most comprehensive, and since I cannot spend the entire morning without, I would like to give back my time so that we could hear from the witnesses.

Mr. WALGREN. The Chair thanks the lady. Other members will be along in time, and their remarks can also be made part of the record.

Let me call our first panel at this point: Ray Kammer, the Deputy Director of the National Bureau of Standards, accompanied by Dr. Lyle Schwartz who is the Director of the Institute for Material Science and Engineering at the Bureau.

Gentlemen, welcome to our process. As you know, your written statements will be made part of the hearing record, and you can feel free to focus or highlight any portion of those thoughts or diverge from them in any way that you would like to underscore what you'd like to communicate to the Committee today.

So we are pleased you're here and we would be happy to hear your testimony.

STATEMENT OF MR. RAY KAMMER, DEPUTY DIRECTOR, NATIONAL BUREAU OF STANDARDS, GAITHERSBURG, MARYLAND; ACCOMPANIED BY DR. LYLE SCHWARTZ, DIRECTOR, INSTITUTE FOR MATERIALS SCIENCE AND ENGINEERING, NATIONAL BUREAU OF STANDARDS

Mr. KAMMER. Thank you, sir. I'm Ray Kammer. I'm the Deputy Director of the National Bureau of Standards. With me is Lyle Schwartz, the Director of the Institute for Materials Science & Engineering.

I'm here to briefly describe NBS's activities with mismarked and substandard bolts, and also to present the views of the Administration.

Over the last two years, NBS has carried out some limited testing on a small number of bolts that were provided to us by the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce.

The bolts that were supplied by the Subcommittee were marked to identify the bolt grade, although we don't know what the source of the bolts were. The test results indicated that some of the bolts were in compliance and some of them were not. In the absence of any knowledge of how they were selected, our observations are really limited to that.

The Administration and the Bureau of Standards oppose both H.R. 5120 and H.R. 5051. Our reason is that the bills would introduce a mechanism whereby the Federal government would be responsible in some situations for reviewing and approving voluntary consensus standards and for regulating their implementation.

Responsibility for these functions would be assigned, in one case, to the Department of Commerce, but our interpretation is that in reality that would be the Bureau of Standards because there is no one else in the Department that could do it more directly than NBS.

As you all know, NBS is not normally involved in regulatory processes and we view it as not consistent with our mission.

However, the issue that causes more concern to the Administration is that the legislation deals with the concept that the Federal Government would regulate the voluntary standards process, in this case, for fasteners. However, it sets a precedent that we believe would be harmful and would tend to diminish the value of the voluntary standards process and reduce the willingness of people to participate in the process.

I'll make a few specific comments on each of the bills, if I may.

In H.R. 5120, in Section 4, the proposal directs NBS within 60 days of enactment to survey and evaluate existing standards. We could not do a complete survey of all of the standards in 60 days. It would take somewhere perhaps up to a year, depending on the difficulty of identifying all the standards and assessing the test methods. It's not an area where we've had an ongoing activity up until now.

Depending on the intent of the Committee, if the intent were to do the best job we could in 60 days, obviously we could do that. I wasn't quite sure which way to interpret that particular instruction.

In Section 5, we're told to coordinate with the voluntary standardization and testing organizations in the promulgation by those organizations of the new test methods to implement the recommendations that are developed under Section 4.

We work very actively with the voluntary standards community, as you all know. We believe that one of the reasons that we're welcomed into the process is that we neither have nor wish to have any authority to tell people what to do, other than the power of our own reasoning. We worry that being put in a position where, in effect, we're giving the standards organizations a form of instruction could reduce the effectiveness of the NBS staff in these organizations.

Section 6 directs the Secretary of Commerce, within 180 days after enactment, to establish a program of accreditation for laboratories. The establishment, of course, of the accreditation program would be dependent on the activities under Section 4 and we believe could be completed within 180 days, assuming the completion of the assignments under Section 4.

Section 7 mandates the standards when they are developed by a voluntary standards organization under Section 5. It mandates those standards. It requires their use, as we understand it.

Making voluntary standards mandatory before they are developed, we expect will have a chilling effect on the willingness of people to participate in the process in that, if the output now has a mandatory character to it, this opens the question of liability with respect to the participants in the voluntary standards process and, in some respects, changes the structure of the standards.

Most voluntary standards now are designed to have a series of options in them, and the buyer and the seller in using the product standard usually negotiate which level of option they're going to make the product to and hold the product to in purchasing it.

The idea of a mandatory standard suggests that there is a unique answer. That doesn't leave as much room for negotiation. It suggests no options in the standard, or could, and this is again something that needs more thought.

Next, if I may, I would like to comment on H.R. 5150. One of the sections of that Act allows the manufacturer to choose standards and specifications to which his products would conform.

This requirement would make it rather difficult to set up a laboratory accreditation system, as the laboratories wouldn't know which standards and specifications they should apply for accreditation. It's hard to imagine any one laboratory being accredited for all the possible standards, fastener standards and tests that are available.

An accreditation program also requires one unique standard to be tested against. This is known in advance to the laboratory and to the people that are doing the accrediting. I'm not sure that this section is implementable in its current form.

The bill goes on to require that the laboratory performing the test must determine the lot from which the test samples were taken and determine if that entire lot conforms to the standards and specifications.

Again, this doesn't strike me as a reasonable requirement. In a sense, the testing laboratory is in the same position that I was describing earlier for the Bureau of Standards. Some bolts were delivered to us, we tested them. We don't really know where they came from. I have no ability to say anything about where they came from. I'm not sure that I can see how a testing laboratory could ever certify this unless they do the sampling themselves, go on to the production line and select the samples themselves, which would be a very expensive proposition and probably not highly regarded by the manufacturers either.

Section 3(d) requires the Secretary of Commerce to issue regulations establishing a program for the approval of laboratory accreditation systems based on ASTM Standard E994- 84. If that standard is withdrawn, the Secretary must approve an alternative procedure or find one, or else issue one himself, if that's necessary.

This in the standards community is called accrediting of the creditors, and it is viewed by most people in the standards community who are concerned with this issue as inconsistent with OMB Circular A119, which is supported by most of the voluntary standards bodies.

What A119 says, in large part, is use the voluntary standards process as it exists now wherever that's practical to do, and I believe it is practical to do in this case.

We feel that regulatory oversight by the Federal government over the voluntary standards process is undesirable, in general, and it's especially inappropriate for NBS to do. We don't issue, and we don't implement regulations. Our ability to continue to work with the voluntary standards process, we think, would be compromised if we were regulating it.

Thank you for this opportunity to comment.

Mr. WALGREN. Thank you, Mr. Kammer. Any further thoughts, Dr. Schwartz?

Dr. SCHWARTZ. No.

[The prepared statement of Mr. Ray Kammer follows:]

U.S. DEPARTMENT OF COMMERCE

STATEMENT OF RAYMOND G. KAMMER, DEPUTY DIRECTOR

NATIONAL BUREAU OF STANDARDS

BEFORE THE SUBCOMMITTEE ON SCIENCE, RESEARCH AND TECHNOLOGY

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

U.S. HOUSE OF REPRESENTATIVES

ON BOLT MEASUREMENT STANDARDIZATION

AUGUST 9, 1988

Mr. Chairman and Members of the Subcommittee:

I am Ray Kammer, Deputy Director of the National Bureau of Standards (NBS), and I am here to briefly describe recent NBS activities related to the issue of mismarked or substandard steel bolts and to summarize the views of the Administration and NBS with regard to H.R. 5120 and H.R. 5051.

Over the last two years, NBS has carried out limited testing on a small number of high strength steel bolts at the request of the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce. The bolts supplied by the subcommittee were marked to identify the bolt grade although the original source of the bolts was not identified nor was the manner of selection described. The test results indicated that some of the bolts were in compliance with the requirements of the grade marked on the bolt and some were not in compliance with the grade

requirements. In July and August 1987, the Subcommittee on Oversight and Investigations held hearings and the NBS test results were made part of the hearing record.

The Administration and NBS oppose H.R. 5120 and H.R. 5051 for a number of reasons. These bills would introduce a mechanism whereby the Federal Government would be responsible, in some situations, for reviewing and approving voluntary consensus standards and for implementing their regulation. Responsibility for these functions would be assigned to the Department of Commerce and by extension to the National Bureau of Standards (NBS), or directly to NBS.

The National Bureau of Standards does not issue or implement regulations in such areas. Such an assignment would not be appropriate for NBS since it would compromise its traditional role as the Federal Government's independent 'third party' technical investigator and advisor.

The larger issue, however, deals with the requirements that the Federal Government regulate the voluntary standards process for fasteners. We believe such oversight would set a bad precedent and would be harmful to the continued health of the United States voluntary standards system. This system works and we believe it is the best approach. An example of the use of the voluntary standards system that has served the Nation effectively and

efficiently is the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code. The Code is a set of standards developed by volunteer technical personnel representing pressure vessel manufacturers and users. This set of standards, first adopted in 1915, is continually updated. Users of pressure vessels produced to the Code requirements can be confident that the vessel will be designed, fabricated, and inspected according to a safe standard.

I will comment first on H.R. 5120, "Standardization of Measurement Act of 1988". Section 4 of the proposed bill directs NBS within 60 days of enactment to survey and evaluate existing standards for high strength steel bolts and other fasteners and to recommend means of improving standardization of bolt measurements through new tests. The evaluation of existing standards originating from different sources requires a highly technical analysis and assessment. It is necessary to determine what properties are measured, to evaluate the precision, accuracy, and sensitivity of the measurements, and to compare any acceptance criteria used in the individual standards. We believe that a thorough survey and evaluation of the large number of voluntary and government standards and test methods for steel fasteners can be completed within one year of enactment.

In Section 5, NBS is directed to coordinate with voluntary standardization and testing organizations in the promulgation by

these organizations of new test methods to implement the recommendations developed under Section 4. Many of the NBS technical staff serve on committees of all of the major voluntary standards organizations. We are welcomed into this process because of the quality of the technical advice from our staff and the neutral third party position NBS has traditionally occupied. Requiring NBS to work with voluntary standards organizations to produce bolt standards could place NBS in the position of identifying some voluntary standards organizations as better or more effective than others. As a result, the effectiveness of NBS staff in these organizations could be compromised thus increasing the difficulty in achieving consensus in the standards organization.

Section 6 directs the Secretary of Commerce within 180 days after enactment to establish a program at NBS for accreditation of laboratories for the testing required by the standards promulgated under Section 5. The establishment of the laboratory accreditation program is dependent on the findings and recommendations from the evaluation of existing standards and test methods required in Section 4. The accreditation program could be implemented within 180 days of the completion of the study required in Section 4, provided improved or new test methods do not have to be developed. If it is determined that additional test methods are needed, the laboratory accreditation program would be delayed until the tests are developed. The

January 1, 1991 effective date of the mandatory standards may not be achieved.

The NBS laboratory accreditation program operates on a reimbursable basis with the operating costs recovered from fees collected from the participating laboratories. The costs to develop a specific accreditation program are covered by the requesting organization.

Section 7 mandates the standards that are yet to be developed by voluntary standardization and testing organizations under Section 5. Making the voluntary standards mandatory before they are developed will likely decrease the incentives in the voluntary standards community to develop new, improved, or more demanding standards. The volunteer participants and their companies will have concerns about potential liability since they will be developing standards and test methods to satisfy a legislated requirement. These volunteers may even be reluctant to serve on the standards writing committees because of the potential for liability. There could also be a tendency to develop standards with minimum requirements in order to reduce potential penalties for failure to conform.

Next I would like to comment on H.R. 5051, "Fastener Quality Assurance Act of 1988". Section 3(a) allows the manufacturer to choose the standards and specifications to which his fasteners

conform. This requirement will make it difficult to set up the laboratory accreditation system required by Section 3(d). Laboratories would not know for which standards and specifications they should apply for accreditation. Forcing laboratories to be accredited for all possible fastener standards and tests would be unreasonable. An accreditation program requires specific, technically valid standards and tests, known in advance so that a laboratory's competency can be judged before accreditation is granted.

In Section 3(c), a laboratory performing the testing required by Section 3(b) must determine that the lot from which the test samples were taken conforms to the standards and specifications. The testing laboratory does not carry out nor control the sampling process and thus cannot draw conclusions about the conformance of the lot. The laboratory can only report the test results of the samples provided.

Section 3(d) requires the Secretary of Commerce to issue regulations establishing a program for the approval of a laboratory accreditation system based on American Society for Testing and Materials (ASTM) Standard E 994-84. If the ASTM standard is withdrawn, the Secretary must approve alternative standards issued by ASTM or other voluntary consensus standards organizations, or must issue a standard for laboratory accreditation systems with any modifications the Secretary deems

necessary. We feel such regulatory oversight by the Federal government over the voluntary standards process is undesirable and especially inappropriate for NBS which does not issue or implement regulations.

I thank you for this opportunity to present the views of the National Bureau of Standards on the two pieces of proposed legislation.

Mr. WALGREN. I guess I'd like to ask, what would you do if you were in our situation where, as I understand it, we have had really large amounts of substandard fasteners improperly marked just show up in the marketplace and particularly show up in large lots in military acquisition?

My instinct is that there shouldn't be too much trouble agreeing on what is an adequate strength and an adequate kind of material and the like to you. So my own conflict in this area doesn't really run so much to the mechanics of determining the standard, but how do we certify the standard across the range of manufacturers? By "certify", I guess I mean how do we assure ourselves that the standard is being implemented?

Mr. KAMMER. I agree with you. The current voluntary standards provide methodology tests for strength for whatever characteristics that you'd regard as desirable in bolts. They don't necessarily speak to the end use. They leave that to the buyer to use the ensemble of tests that are available in the voluntary standards process and to decide what level he wants to specify a performance, a certain heat treatment, a certain strength sort of thing. I think the standards that exist are more than adequate for that.

The thing that appears to be absent is, the buyer hasn't been aware that there was a serious problem until pretty recently. The buyer was assuming that the product, as presented, was at the quality that was specified. They weren't having trouble specifying the quality. They were using a standard that's well understood by most and the seller wasn't delivering what he promised he was delivering.

It seems to me, the first alternative at this point is sort of normal contract procedures—"You, the seller, didn't deliver to me what you promised to. Now make it right or get out of the marketplace."—which requires the buyer to check the product on some regular basis.

My sense is that that is a reasonable solution. I expect that's what people are doing now that they're more aware of the problem. To go much past that, our society has decided on a number of occasions that it wanted to because there was some risk to public health that was regarded as very large.

I do not have a good understanding of the dimensions of the problem, if you will. The surveys that have been done certainly suggest that there are bad bolts out there. I don't think anyone would debate that. How many of them there are, how difficult it is to get them out of the marketplace, is at least not well demonstrated so far. I have yet to see the study or the thought process that would explain that, so perhaps that's the next step.

Mr. WALGREN. Of course, one of the ways to make the people who engage in the sales transactions related to bolts very careful is if we do have some specific government involvement in which we are asserting the importance of certain standards. As under these bills, if the Bureau was required to inject itself into that, the message would be a very good one, much like in the Fire and Safety Code or the like where you have an agency specifying a very specific code. People tend to take it more seriously than if they are just selling a bolt that's strong.

Mr. KAMMER. Certainly, the analogy in the case of fire is one that I think our society at all levels—State and Local, Cities, Federal Government—accepts that there is supposed to be a governmental involvement. Of course, the size of the problem is pretty well understood there too.

I just am not certain if bolts achieves quite that level of risk. I really don't know. I'm not arguing the point, I don't know the answer.

Mr. WALGREN. The problem, particularly with the military, is that we have the ultimate responsibility for that life. We are not permitted to run a risk with that life because we are putting it in a risky situation to begin with.

Mr. KAMMER. I think the government's always in a position where it's reasonable to set rules for its own practice. To make statements about I will not buy unless a particular product meets a certain set of conditions, or I will test it in this way, or before you can sell to me, the government, you have to—

Mr. WALGREN. That's essentially where we are because, as I understand it, the quantity that the government buys in these circumstances prevents us from—and because the products is so intermixable and in some instances, as I understand it, you would get a carton of foreign manufactured bolts just dumped in to fill out some order of domestic manufactured bolts. They are below grade and won't hold a military vehicle together.

The point being, though, that the government is in a position that we buy so many of these things, that somehow or other we've got to tighten up on the manufacturer because inspection is too difficult a problem.

Mr. KAMMER. If one has a sampling scheme, one will not screen out all of the size of the sampling. You would have to undertake to screen out all the bolts that were bad, if you will. It would be enormous, probably more than the value of the bolts.

But if one sets up a screening program, one will identify which manufacturers regularly deliver unacceptable bolts and which ones deliver good bolts. Having identified those, one can either undertake a program of making them better or one can exclude them from the process.

It would seem to me that would provide a pretty large incentive for the suppliers to make sure that they were doing it right, as many of them do today as well. It's not an insurmountable problem. Not all manufacturers deliver bad bolts.

Mr. WALGREN. Then our responsibility goes beyond that into the civilian sector, because these bolts play a large role in civilian safety as well. Let me recognize the Minority Members here today.

Ms. SCHNEIDER. Let me say, Mr. Kammer, I can appreciate your reluctance and that of the Administration to embrace these pieces of legislation. But at the same time, I share the inquiry that the Chairman has, and that is "Well, if we don't take this approach, then how do we solve the problem?".

I hope that you will be able to stay to hear the testimony of some of the later witnesses who will elaborate on the breadth of the problem. I understand that one gentleman says that about 30 percent of all of the fasteners that he is encountering do happen to fit into that category as being counterfeit.

We are very much in the situation. I come from the State of Rhode Island, one of the homelands of fasteners and bolts and machine tooling and that sort of thing. We recognize that there is an enormous challenge that we are facing with counterfeiting.

As a matter of fact, a very timely thing just occurred yesterday to show the breadth of the problem. That is that I got a letter from a constituent of mine who happened to enclose his brochure for Bell Fasteners and at the same time he enclosed one of his competitors, or should I say counterfeiters from Taiwan called Bellstar.

If you think that they are only copying the fasteners themselves, this particular company copied the brochure and even the layouts and the drawings and everything else in an attempt to sell his goods at a much reduced price. My staff person is there sharing this information with you.

We in Congress understand the breadth of the problem and also the ramifications, not just of the advertising, but particularly of the fasteners themselves. I think that we are in a situation where we feel that there must be something that we can do, so we are seeking solutions. If you do not feel that this legislation is the appropriate solution, then certainly we are receptive to any other kinds of ideas you might have.

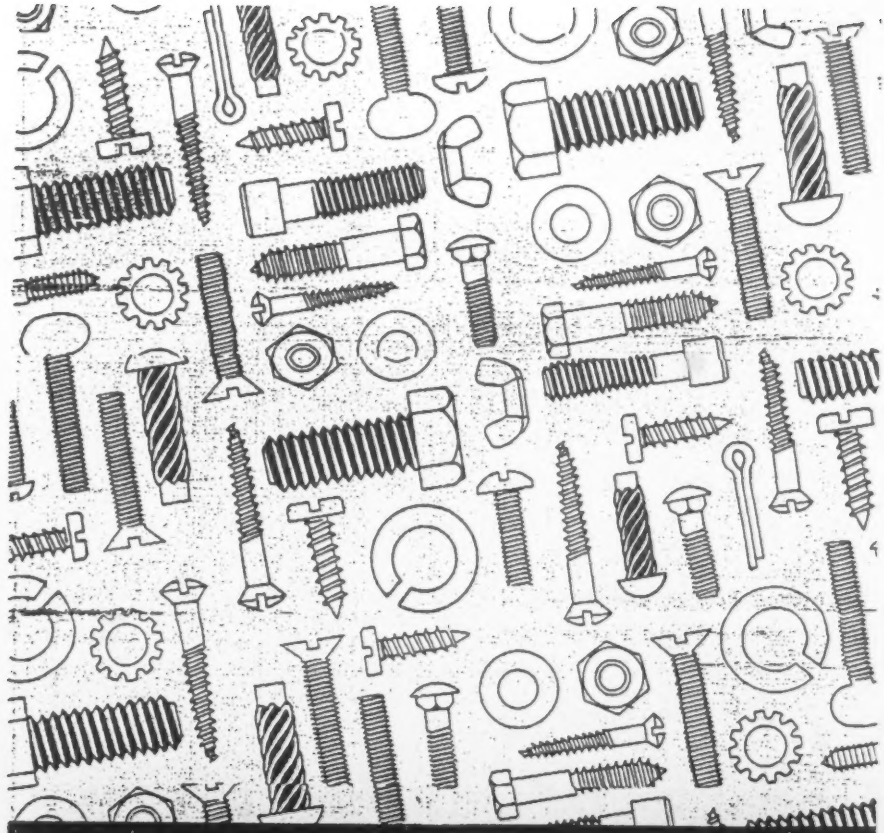
I welcome your comments.

Mr. KAMMER. I would have to say that this is a pretty good example of counterfeiting.

Ms. SCHNEIDER. Awfully good. I have no questions, Mr. Chairman.

Mr. WALGREN. We ought to make this submission part of the record. It's a dramatic example of what it is we're dealing with and to me indicates that we have to have some assurance of these fasteners as they come from our manufacturers.

[The information referred to follows:]



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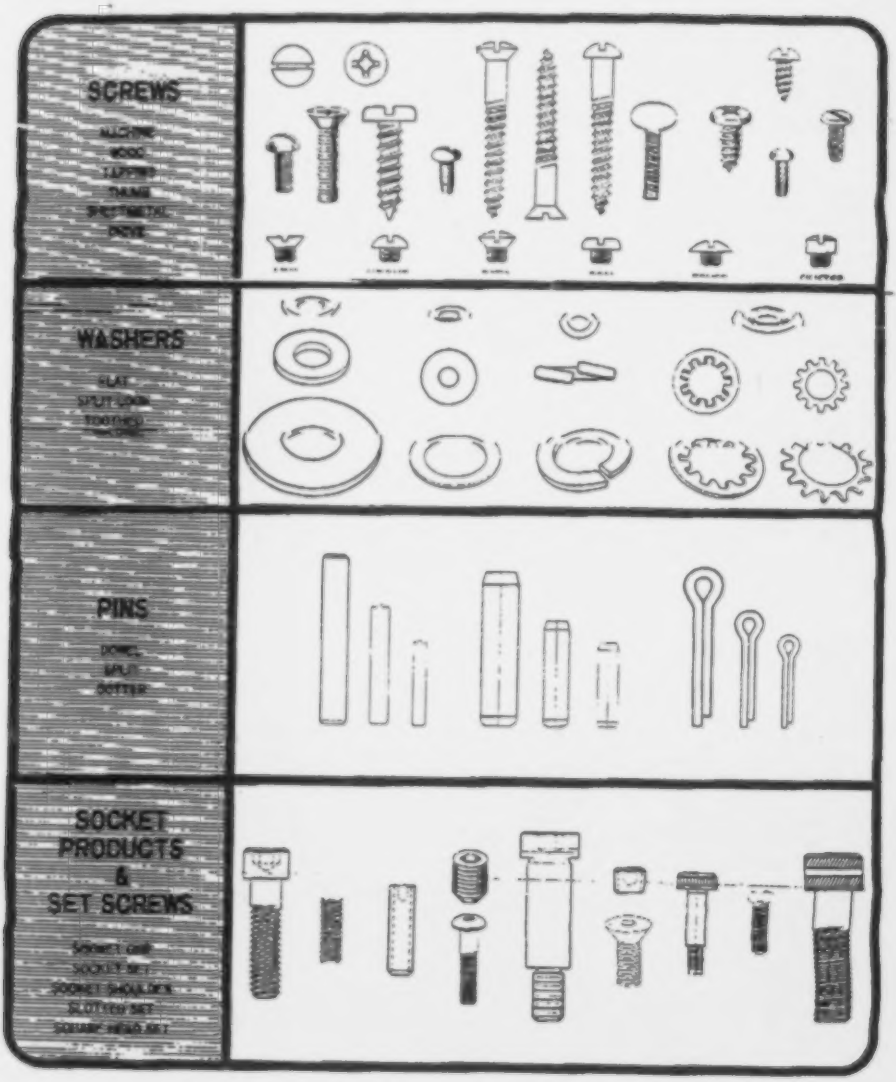

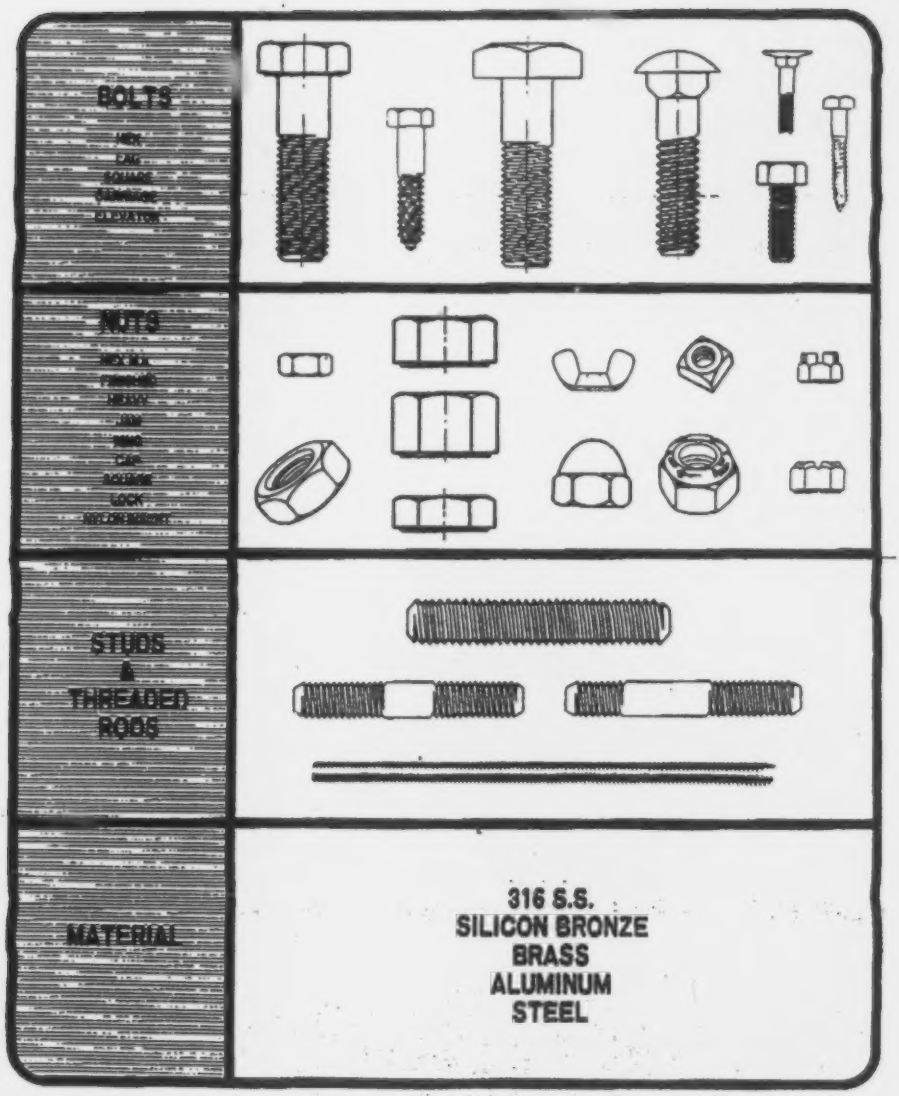
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WOOD
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THUMB
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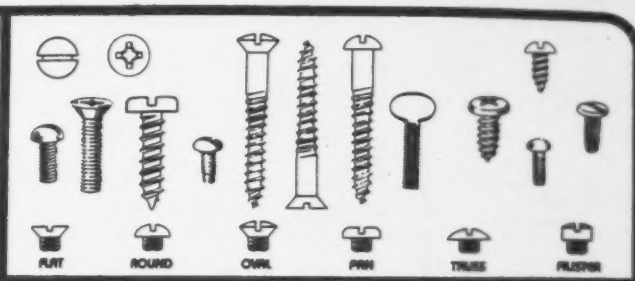
DRIVE



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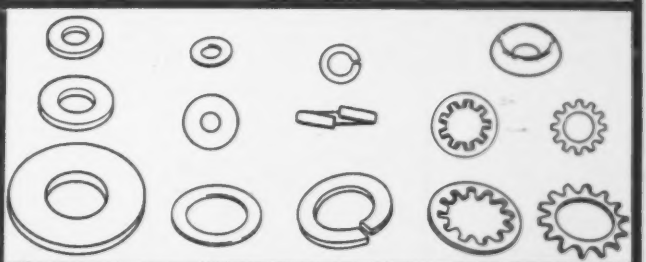
FLAT
SPLIT LOCK
TOOTHED
FINISHING



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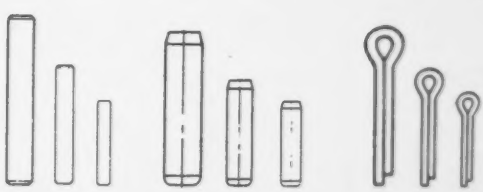

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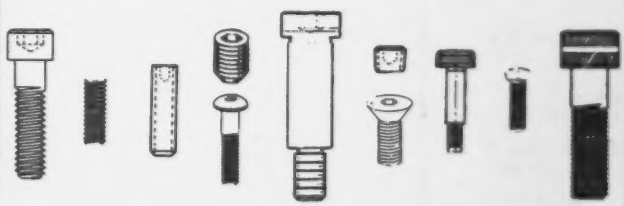
SOCKET SET
SOCKET SHOULDER
SLOTTED SET
SQUARE HEAD SET



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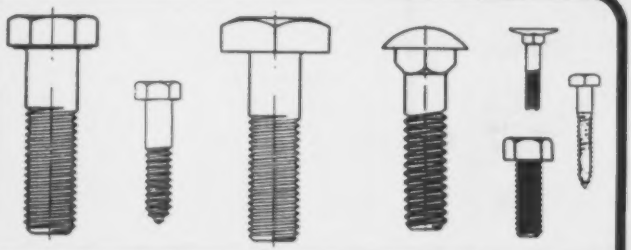

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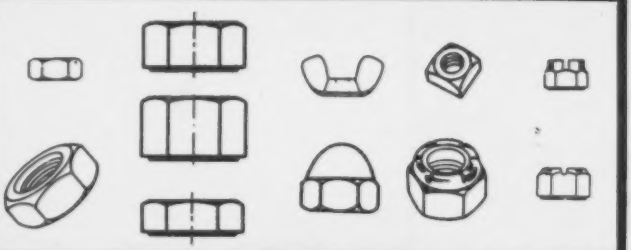

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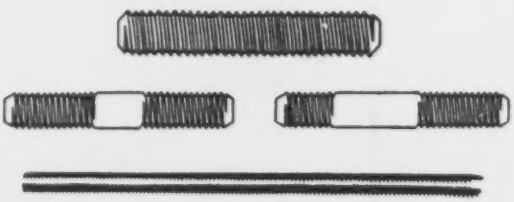

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Mr. WALGREN. Well, I particularly appreciate that exhibit. You made a great contribution.

The Chair would like to recognize the gentleman from Michigan, Mr. Henry.

Mr. HENRY. I have no questions or comments at this point, other than to say I'm a little disappointed in the initial testimony. I think the severity of the problem in terms of, quite frankly, fraudulent activities of certain manufacturers is substantial. Because of the importance of fasteners in terms of the structural integrity of so many aspects of the manufacturing process, I'm not sure that simply saying that some manufacturers be reluctant to go on with stronger certification and requirements is implicit and the use of some kind of agreed upon certification standard isn't absolutely necessary to protect the good guys from the bad guys.

Mr. KAMMER. Sir, the point I was trying to make is it needn't be a regulatory process. Most goods are exchanged, most transactions take place as a result of an agreement between a buyer and a seller. The voluntary—

Mr. HENRY. I understand, I read your statement. It's just that I'm very curious to see what industry has to say on this.

Mr. WALGREN. We recognize the gentleman from New York, Mr. Boehlert.

Mr. BOEHLERT. No questions.

Mr. WALGREN. I guess, I am personally in the position of not knowing what the right thing is to do in this area, and we are really looking for suggestions. I can appreciate the Administration often is reluctant to inject the government into anything, and I understand that that's a philosophy and a theory with which they have approached government.

But in this instance, the kind of damage that is being done I think requires some kind of governmental response. I would hope that the Bureau would be as forthcoming in its suggestions as to what that response should be, from your perspective, as you can.

Aside from saying this is a buyers' and sellers' problem, do you have any specific suggestions about the contribution that the Bureau could make in this area?

Mr. KAMMER. Well, the standards that are in the voluntary process are at least adequate enough. We haven't done the assessment yet, but they are at least adequate enough so that people have been able to identify the bolts that are not good using current test methods.

I think the issue at that point focuses on, as you were saying earlier, what one wants to do. Having identified that there are bolts and you can tell the difference between the ones that are good and the ones that are bad,it is then a question of what one wants to do about it.

I can tell, it isn't the answer that people are looking for at the moment. But trying to use the normal contract process as a first approach seems to be consistent with the general philosophy of our society, and it should work in this case. It's not a technically difficult issue.

Mr. WALGREN. What about the role in accreditation of laboratories? That seems something very do-able.

Mr. KAMMER. The role we have normally fulfilled in that is to accredit testing laboratories rather than to accredit accreditors. I am very uneasy about accrediting other people who then go forth and accredit testing laboratories.

Mr. WALGREN. Why would we be real uneasy about that?

Mr. KAMMER. It has to do with—there are a lot of subjective decisions that you have to make in accrediting a testing laboratory. With the testing laboratory itself you can say, I'm going to test and perform this particular physical process and you need a certain kind of machine. The people have to have a certain level of experience or education, and then I can send them some samples and I can watch them test them and I can look at the results. It's pretty straight forward. It's not a guarantee, but I can do it.

When you start accrediting accreditors, you are giving someone else permission to use your name, if you will, and assure the public at large that NBS said, I'm good at accrediting people, I'm not accrediting this guy, and this one's performing okay.

It's pretty subjective. It hasn't been the way that things have been done in the past because of people's concern that the people who were the accreditors of accreditors, if you will, might not perform up to the level one would hope. This has been a topic of debate for almost 20 years in the standards community.

My view is that it is not a good idea to accredit accreditors.

Mr. WALGREN. Can you make any short form comparison between these bills?

Mr. KAMMER. Let's see if I can make sure I got the numbers right.

H.R. 5051 has a number of aspects that I don't believe are feasible to implement. They simply don't make sense as something that one could do.

H.R. 5120 in some respects I can imagine how to do all the assignments that are associated with that bill. As you can tell, there are some parts of it where I'd like to persuade you to another point of view. Certainly the stuff of timing is simply a matter of discussion. But the concept in Section 7 of a mandatory requirement is one that I'm not fully comfortable with, as you can tell, but it's feasible. I know how to implement it.

Mr. WALGREN. Okay. Well, we look forward to having some further conversations with you about this as we sort out our own thoughts on it. Perhaps the Bureau will find itself more involved in this than it might wish, but we'll just see whether that's the case.

Thank you very much. We appreciate your coming up.

I'd like to hear now from Mr. Charles Wilson, the Technical Director of the Industrial Fasteners Institute. We're sort of moving witnesses around a little bit this morning to accommodate some of the schedules that people have.

Mr. Wilson, if you could come forward, we'd be pleased to have your testimony and anything in writing that you would like to submit will be accepted and reproduced in the record. You can feel free to focus on any particular part or idea that you would like to present in whatever way you feel would be helpful. We're pleased you are here.

STATEMENT OF MR. CHARLES WILSON, TECHNICAL DIRECTOR, INDUSTRIAL FASTENERS INSTITUTE, CLEVELAND OHIO.

Mr. WILSON. Thank you, Mr. Chairman. I have submitted a brief written statement to you, and I would like to note that on page two, for matters of accuracy, the third line, bottom, the words "the Challenger" should be deleted and replaced with "the Space Shuttle". Other than that, I think the statement at least would be quite accurate.

I am very pleased to have the opportunity to discuss with you H.R. 5051 as now drafted. I would like to begin by saying that I have been involved with fastener standards, the development of them, for over 25 years in my employment with the Industrial Fasteners Institute in Cleveland.

The IFI is a trade association. It represents 81 manufacturers of fasteners throughout North American, which includes Canada, Mexico and the United States. Additionally, we serve 32 or have 32 associate members who serve to provide our materials for machinery and tooling services, which includes such things as heat treating, plating and engineered installations.

I am a mechanical engineer. I have served on a number of different standards committees including the American Society of Mechanical Engineers, the American Society of Testing Materials, now known as ASTM, and the Society of Automotive Engineers.

I would like to state that I believe the voluntary system of standards is working quite well. I think it is a very healthy system. I think that it has produced the best system of engineering standards for the United States and in the World.

My experience in representing the United States' international standards activities certainly indicates that our standards are often copied by many other major manufacturing countries in the world because of their technical excellence. That's quite true with mechanical fasteners.

The problem in fasteners is not one of engineering standards or specifications. The problem is basically that the standards themselves have been used by persons who have no interest or care at all. Using the standards in effect to present products which are not conforming to those standards as if they were manufactured to the standards. This has obviously given these people a very significant competitive advantage in the marketplace.

The results have been quite obvious from the manufacturing industry side of this equation. Early, there has been a great deal of damage done to the fastener industry over the last ten years.

I believe this problem started with the oil shortage in 1979 with products that were substituted for those that require less energy to produce, and they look exactly like their counterparts. By deliberately mismarking them, they were able to introduce them into the marketplace at costs significantly below the genuine article.

The Institute in 1986, actually at the end of 1985, became aware that there was a problem, the current problem in the marketplace in terms of counterfeit or substandard or nonconforming fasteners. It conducted its own investigation and published the results in May of 1986.

The findings strongly indicated that the entire system of distribution in the United States was filled with millions and millions of counterfeit fasteners, fasteners that were deliberately mismarked as to their engineering capability and/or material content.

Since that time, I have received literally hundreds of phone calls by consumers all through the United States and Canada and Mexico. The phone calls all seemed to bear a very similar type of response. Namely, the consumer has seen a significant deterioration in the quality of fasteners that are being offered to them at bargain prices, prices which should have triggered their thinking much earlier.

Obviously, this has been caused I believe by the condition of the United States and its industrial competitiveness. This country has been fighting to maintain its industrial supremacy in the world, a world which is now a free open trading world forcing industrial companies to cut costs in every way possible. They were looking for ways to reduce costs. Purchasing is certainly one of them, and when people come to your doorstep offering look-alike, bargain-priced fasteners it becomes a great temptation, even if you are aware that they are not right. I don't think in many cases they were.

What they need to do is, in my opinion, support the voluntary standards effort with the placement of penalties. One of the difficult problems that apparently exists is the inability of those in the defense criminal investigative service, Naval Intelligence and other agencies who are trying to pursue this problem, to find the right law, if you will, to punish vendors.

There does not now exist a law that really provides a stiff penalty for those who have been found to be engaged in this type of practice. Smuggling laws have been indicated.

I think that there is a need. I think that House Bill 5051, where the penalties are in place, is generally well-reasoned and well-thought-out.

I do think that these are at least two changes that should be made in that bill.

The first one deals with Section 4, Part (a)(1). We would suggest a sentence should be inserted which indicates that the only exceptions to the mandatory marking shall be those in which standards for dimensions and/or performance do not require such markings.

The second change is in Section 9, Line 3. It should be revised to read "with a diameter one quarter inch or more or five millimeters or larger".

The first change is recommended to allow the voluntary standards committees to deal with the complexities of individual products which may not be practically marked. The second change is recommended to assure the bill would apply to both metric and inch module components.

With these two changes, I believe that H.R. 5051 will completely and totally restore confidence in the use of mechanical fasteners in all segments of the United States economy and, most importantly, it will protect consumers from various safety hazards proposed by the continued introduction of mismarked fasteners through our industrial and defense supply base.

In closing, I would like to comment that the second bill, H.R. 5120, does not, in my opinion, solve any of the problems related to the mismarking of substandard or nonconforming fasteners. Further, the option of H.R. 5051 would eliminate completely the need for a second bill.

Thank you.

[The prepared statement of Mr. Charles Wilson follows:]

SCIENCE, RESEARCH AND TECHNOLOGY SUBCOMMITTEE
OF THE COMMITTEE ON SCIENCE, SPACE & TECHNOLOGY
UNITED STATES HOUSE OF REPRESENTATIVES
AUGUST 9, 1988

Good morning, Mr. Chairman. Thank you for the opportunity to appear before you and express support for House Bill H.R. 5051 entitled "Fastener Quality Assurance Act of 1988".

I am employed by the Industrial Fasteners Institute which is a trade association representing the fastener manufacturing industry in North America. We represent 81 manufacturing companies in Canada, the United States and Mexico, and an additional 32 associate members who serve the fastener manufacturing industry by supplying raw materials, machinery and tooling, and services such as heat treating, plating and engineered installation.

On May 2, 1986 the Industrial Fasteners Institute (IFI) distributed a news release publishing its findings concerning the supply of Grade 8 fasteners in the distribution system of the United States. It detailed significant findings which indicated widespread material substitution and mismarking of Grade 8 fasteners. Since that time, literally hundreds of examples have surfaced which support those findings and indicate that the entire distribution system for fasteners in the United States has been polluted by mismarked fasteners. In many cases, the circumstances suggest that these substandard fasteners were

deliberately mismarked by the manufacturer as to their material content and/or engineering capability.

I have personally discussed with several hundred consumers over the past two-year period many cases of fastener quality deterioration. Much of this may have been caused by customer oversight as industries throughout the United States have struggled to maintain their industrial competitiveness in a fiercely competitive world trading environment. In this competition for survival, many of these fastener users have been victimized by fastener vendors who have provided substandard fasteners at "bargain" prices without regard to consequence. House Bill H.R. 5051 is a serious well-reasoned attempt to restore consumer confidence and assure that further attacks on the engineering system of standards by unscrupulous vendors will be met by sound legal remedy and penalties to discourage continuation of these activities. This bill should not be viewed politically but instead should be accepted for what it is: a bill designed to correct an abuse of engineering standards and specifically to halt those commercial practices which seriously jeopardize user/consumer safety and well-being. Reports in the Houston Post last Sunday detail the spread of this terrible and flagrant abuse into aircraft and even the space shuttle. I have completed a careful review of the existing H.R. 5051 and would humbly suggest two very modest revisions. The first:

(1) In section 4, (a)(1) a sentence should be inserted which indicates that the only exceptions shall be those in which standards for dimensions and/or performance do not require such markings.

(2) In section 9, (b) line 3 should be revised to read "with a diameter of 1/4 inch or more or 5 millimeters or larger containing any" --.

The first change is recommended to allow the voluntary standards committees to deal with the complexities of individual products which may not be practically marked. And the second change is recommended to assure that the Bill would apply both to metric and inch module parts. With these two changes, I believe H.R. 5051 will completely and totally restore confidence in the use of mechanical fasteners within all segments of the United States economy and, more importantly, passage of H.R. 5051 will protect consumers from the serious safety hazards posed by the continued introduction of mismarked fasteners into our industrial and defense supply base.

In closing, I would like to comment that the second bill, H.R. 5120 would not, in our opinion, solve any of the problems related to the mismarking of substandard or non-conforming fasteners. Further, the adoption of H.R. 5051 would eliminate completely the need for this second bill.

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Mr. WALGREN. Thank you very much, Mr. Wilson. We appreciate that perspective. Can you give us any sense of how much of a problem of this is imported versus domestic quality? Do you have any feel for whether American manufacturers are mismarking, or are most of the mismarks simply some version from the Far East that really is imitating design in markings more than anything else.

Mr. WILSON. I think we have two basic problems. One of them is we have a world in which there exists multiple standards for quality assurance that we have in the United States. Fasteners happen to be a very good example of an industry that has established rigorous good quality assurance specifications published by the American National Standards Institute. In fact, they are one of the few product line items that have the National Quality Assurance Plan. There are other standards which exist in other countries of the world, all of them different, none of them acceptable generally in North American practice.

The second is product liability. The question you asked: Do North American producers generally engage in this practice? I think not. The reason is that they all live with the threat of product liability hanging very realistically at their doorstep. They cannot afford to engage in this type of practice.

However, those offshore may feel that they are out of reach of the longarm of the product liability laws which exist in this country. Therefore the subject of mismarked fasteners, the mismarking of them, may well explain in many ways why so many of them have been mismarked. The law in effect has obscured the identity of the manufacturer, we happen to think generally, offshore. That is what the evidence indicates.

Mr. WALGREN. Mr. Henry.

Mr. HENRY. Thank you, Mr. Chairman. Just a couple quick questions for clarification.

The issue isn't really the lack of standards, this issue in the industry in terms of legitimate producers. There's a standard out there that is well known and understood. The problem is ensuring that the product which comes to the marketplace is in conformity with those standards.

Does present law require the marking of fasteners either by certifying that the individual fastener meets agreed upon or some objective criteria and does present law mandate marking of the product with some indication so you can trace the manufacturer?

Mr. WILSON. Generally speaking, all of the voluntary standards which are in existence require marking for a strength grade and manufacture. Interestingly enough, it is the government standards, the military standards, and others which have been the great exception to the rule, where the marking provisions in those standards have been nonmandatory.

Mr. HENRY. In other words, the problem then isn't so much private sector, it's government sector, although you're going to get private sector manufacture for the government market. But you're saying, for example, a fastener that is used in an automobile is marked by certifying by manufacturer the standard?

Mr. WILSON. I don't know that that would be correct. There is always a few limited exceptions to the rule. But I think generally the standards would require it. The only time that it would prob-

ably not be done, would be at the specific request of a customer for appearance purposes or other reasons.

I happen to know that it is the general practice of all North American fastener producers to mark their product with their own individual mark.

Mr. HENRY. So it's not really a law, but it's common practice in the private sector then?

Mr. WILSON. Yes.

Mr. HENRY. Is the cost of manufacture significantly effected in anyway by these markings?

Mr. WILSON. No, not at all.

Mr. HENRY. It's all incremental, because you're stamping them out anyway?

Mr. WILSON. Yes.

Mr. HENRY. It's just how you stamp them.

Mr. WILSON. Sure.

Mr. HENRY. And simply having a part that is large enough to bear a marking is really the only problem you would face?

Mr. WILSON. Yes.

Mr. HENRY. Then you still are going to have the problem though of counterfeits, even with this. So the real problem is getting counterfeits, plus the problem of getting government work to demand such markings. That's really what it boils down to. I mean, a statutory requirement, for example, of marking, the problem isn't really getting the standard. In that sense I understood exactly what you were saying. The problem is, how do you get the standard in the marketplace. So please don't take personal my form remarks, but it's such a critical issue.

The problem isn't the standard, but it's quality assurance in the marketplace. In the example that we were just given by Ms. Schneider, I take it Bell Fasteners marks then for most commercial markets in the States, or its American markets, the standards and source of manufacture, some code there so that if I pull it out an item I'm going to find out who manufacturer is and that they are certifying they meet an objective standard?

Mr. WILSON. Well, the—

Mr. HENRY. So as the manufacturer I, in fact, do have some liability associated with it. Likewise, as the user I'm responsible for using a bolt or fastener that meets some kind of objective standard appropriate to whatever end use product of the fasteners be used.

Does the problem occur that Bellstar, the knockoff from Taiwan, doesn't mark, or do they fraudulently mark? Is the problem that they are fraudulently marking or that it's a knockoff without any markings?

Mr. WILSON. I do not personally have any knowledge.

Mr. HENRY. Does the Chairman know?

Mr. WALGREN. It's my understanding that there's a lot of bolts that are marked and they're deliberately marked to lead you to believe that they meet a certain quality, and they were not manufactured to that quality.

Mr. HENRY. I'm at a loss though, then, how improved certification standards intercept this problem. Does the Chairman understand my dilemma here?

Mr. WALGREN. It strikes me that there's very much almost a possession, a chain of possession problem that is in the marketplace. It is, as the gentleman says, a quality assurance problem that is in a system where large bulk quantities pass through several marketing hands. For example, Bell Fasteners does not sell to the end user specifically. They say here, we do not sell directly to the end user. And so somebody is handling that product between their manufacturer and their ultimate user.

Mr. HENRY. It transfers liability as well, I would imagine, in some respects.

Another question either to the Chairman or to the Chairman or the gentleman from NSF. So the problem isn't just fixing the standard or tightening the standard, the problem is the marketplace.

Does anyone know—the Chair, the gentleman from NSF or someone in the industry—why government contracts don't demand similar markings? One of these, for instance, first came to light in some Defense Department Contracts in which we found some major, very expensive hardware had defective fasteners with it. Why have we exempted the government from bid requirements with these kinds of markings when it's standard in the private sector, does anyone know? I'm asking very innocently.

Mr. WILSON. I guess I would take a stab at this, and I do not work for the government. But I suspect that the prior regulations encouraged the DISC particularly to buy in small quantities. It was small quantities that they were buying in. If I recall the testimony, I think they had, for example, as many at one point in time as 1,800 open contracts for Grade 8 fasteners.

This is so mind boggling from the point of view of most consumers to actually split up their needs into such small units, that it encouraged the distributor to try and do business. This is what most manufacturers actually, in the industry I work in, has done very little business, if any, with DISC for the last ten years. The reason is the requirements to buy 150 and 200 fasteners at a time, which is practically impossible to meet in the usual manufacturing sense. Our industry makes 200 billion fasteners.

Mr. HENRY. But it wouldn't effect it in any way. I mean, why would you be encouraged to manufacture some lots with markings and some without? It seems to me you'd still be sending marked lots over no matter what the size of the order.

Mr. WILSON. I think what DISC found is the people that were coming to their doorstep to sell them were distributors, and others who had no investment literally were store front operations and they were offering fasteners without marks. The reason they were is they were, in effect, selling them substandard products at prices significantly below legitimate parts.

I know of two companies that back in the mid-'70's shared information with me that very clearly indicated that what they were trying to bid against in the DISC was an absolute impossibility. The cost of their material was more than the actual cost of the fasteners that were being supplied to DISC.

Mr. WALGREN. If the gentleman would also yield. It's my understanding that the government does require marked fasteners, and the problem has been that the marks have been asserting a quality

that then was not there in the fastener. The problem is, they buy so many of them and the lots can be mixed up so completely that, absent some kind of individual sampling, large numbers of fasteners that don't meet the quality that the government is asking for have passed into the system.

As the witness has said, this is reaching proportions of 30 percent. Did you indicate that?

Mr. WILSON. I feel I do not have any statistics other than I know the Grade A issue involves literally millions, hundreds of millions of fasteners. These have been found in just about every level of consumer applications.

Mr. HENRY. If the Chairman will yield. The problem then with 5120, it seems to me at a surface look, is that while it tries to strengthen the Bureau's role in improved standards and voluntary standards that would apply in industry, it has no real enforcement in terms of batch lot testing to assure that a manufacturer is in fact meeting those requirements, whereas 5051 gets us into random batch lot testing as a criteria to market in the United States.

Is that the fundamental difference? That's really the guts of the difference, isn't it? I'm just wondering it with respect to different drafts. We all got on drafts and wish sometimes we had gotten the other ones. I think I'm on both as co-sponsors, so I'm covered.

But I seen really no hope in just trying to upgrade accreditation of laboratory standards when the problems are really enforcement in the field, in terms of what's out there.

Mr. WILSON. If I may comment, Mr. Chairman. One of the very important features in H.R. 5051 I think perhaps demonstrates the work that has gone on in the development of that bill. It requires lot control. This is something that is really the cornerstone of quality assurance. At the moment, in the distributing family there are probably 900 separate companies who involve themselves in distribution. This is the rare exception—perhaps six of the 900 companies that I am aware of actually have lot control in place in the distribution system. This is where the whole breakdown in quality has gone on.

So the establishment of lot control the bill provides for is really a key ingredient combined to address this whole issue. Assuring the customer, anyway, that there is lot traceability will help in establishing quality assurance.

Mr. HENRY. The Bureau in its testimony was a little concerned about the changes in accreditation process, but does the Bureau have any objection to lot control requirements?

Mr. KAMMER. The concept contained in the bill under discussion, a testing laboratory would accredit the lot. The only way that a testing laboratory could do that as opposed to the manufacturer is to go into the manufacturing process and take their own sample. Anything short of that, and it's not them certifying it, is something different. It's the manufacturer representing it, which might be an adequate solution, but it would not be the accrediting laboratory doing it.

The presumption in the bill currently is that the accrediting laboratory would be able to do that without going into the design and condition. I wouldn't agree that they can certify it.

Mr. HENRY. But the issue isn't really the standard. The issue fundamentally is lot control. I mean, there are numerous concensual standards. They're even referenced in the legislation.

Thank you Mr. Chairman.

Mr. WALGREN. The gentleman's time has expired.

The Chair would like to recognize and turn the Chair over to my friend from Pennsylvania. I apologize, but I have another commitment I have to meet. I want to express my appreciation for the interest that he's taken in this subject. So I will leave you in the capable hands of Mr. Kanjorski.

Mr. KANJORSKI [presiding.] Mr. Wilson, have you finished your testimony or do you have anything else to add?

Mr. WILSON. No, I am finished, sir.

Mr. KANJORSKI. Okay. Thank you very much for coming this morning.

With the next panel we will have Mr. Hautala, accompanied by Mr. Benedict, and then Mr. Nicolo and Mr. O'Grady. Gentlemen, do you have opening statements? If I may, maybe we could start with Mr. O'Grady.

Mr. O'GRADY. We were going to start from the other end, but I can start if you wish.

Mr. KANJORSKI. Mr. Hautala, then we'll take you first.

STATEMENTS OF MR. RICHARD HAUTALA, CHAIRMAN, FASTENERS COMMITTEE, SOCIETY OF AUTOMOTIVE ENGINEERS, WARRENDALE, PENNSYLVANIA, ACCOMPANIED BY MR. JOHN BENEDICT, STANDARDS CONSULTANT, SOCIETY OF AUTOMOTIVE ENGINEERS; MR. JAMES NICOLO, CHIEF, TESTING AND EVALUATION DIVISION, DEFENSE INDUSTRIAL SUPPLY CENTER, PHILADELPHIA, PENNSYLVANIA; AND MR. JOSEPH O'GRADY, PRESIDENT, AMERICAN SOCIETY FOR TESTING AND MATERIALS, PHILADELPHIA, PENNSYLVANIA.

Mr. HAUTALA. Mr. Chairman, my name is Richard Hautala. I am Co-Chairman of the SAE Fasteners Committee. I would like to introduce at this time Mr. Benedict who is a consultant for SAE, and I would defer to him for any questions you might have regarding SAE procedures.

I've had very little time to study either House bills and it precludes me from being very extemporaneous in commenting on them. So I would just like to read my statement to you regarding SAE's position.

I'm here today to testify for the Society of Automotive Engineers, Incorporated, commonly referred to as SAE. I am testifying in my capacity as the current Co-Chairman of the SAE Fasteners Committee responsible for developing fastener standards and recommended practices in ground vehicle applications, i.e., cars, trucks, buses, and construction equipment. My professional capacity is that of Staff Engineer in the Engineering and Research Materials Division at Caterpillar, Incorporated, Peoria, Illinois.

The Society of Automotive Engineers is a technical society with over 50,000 members worldwide. One of the major programs within SAE is the development and dissemination of voluntary consensus standards. Over 13,000 engineers and scientists volunteer their

time and expertise to develop and approve technical standards. SAE develops these standards via the consensus method which is accredited by the American National Standards Institute, or ANSI, and all SAE standards and recommended practices are submitted to ANSI for adoption as American National Standards.

These SAE standards are designed to advance the state of technical and engineering sciences and the use of these standards is entirely voluntary. SAE does not, in any way, enforce their use. Through the voluntary process, SAE strives to ensure that the standards are technically sound. This is accomplished by the continuous solicitation of input from industry and government.

Membership on SAE standards-writing committees is open to all technically competent individuals. The composition of the committees attempts to attain an equitable balance of representation so as to provide a competent and authoritative committee with no single interest dominating.

In considering the balance of a committee, the individual's point of view as a producer, user, consumer, or regulator is considered. Any person who is or may be directly and materially affected by any proposed SAE committee activity may request to participate by writing to SAE.

There are two points regarding the question of fastener quality that I wish to address this morning.

The first point deals with the issue of whether or not the standards are technically sound. The role of a voluntary standards developing organization such as SAE is to provide the standards and specification documents needed for the full and complete description of fasteners sufficient for design specification, purchasing/procurement, end-product quality control and assurance.

For fasteners, such standards are set forth and cover such essential information and data as materials chemical composition and mechanical properties including strength, hardness, end-product configurations and dimensional specifications, and test procedures to evaluate the conformance to the specified parameters.

SAE feels that the standards are technically sound, but I want emphasized that it is the responsibility of the end- user to ensure that what he is buying meets the standard. As stated previously, if any individual feels that the technical requirements in a standard need improvement, they have the opportunity to provide input and participate in the review of the standard in question. All standards are reviewed and either reaffirmed or revised at least every five years.

Secondly, the concern for fastener quality raises issues that go beyond the voluntary standards system. It is SAE's position that the voluntary standards system is generally successful with input from the affected parties. Environments beyond this voluntary system is an area where SAE has no opinion. Traditionally, however, the quality of any purchased product has been determined between the buyer and the seller. Any deviation from this procedure should be carefully considered.

Whether or not a certification law is enacted, the fact remains that communication between the buyer and seller based on complete specifications which rely on factual information and technical

data describing the fasteners being purchased is essential to guarantee that the product will meet the specifications.

Mr. Chairman, let me conclude by saying that SAE's voluntary standards system continues to fulfill its role by gathering technical data and disseminating it to the world. Thank you for the opportunity to provide our input on this important matter.

[The prepared statement of Mr. Richard Hautala follows:]

Remarks by SAE Relative to the Proposed H.R. 5120 and H.R. 5051 on Fastener Quality Assurance

August 9, 1988
Richard E. Hautala

Good Morning. My name is Richard E. Hautala and I am here today testifying for the Society of Automotive Engineers, Inc., commonly referred to as SAE. I am testifying for SAE because I am the current co-chairman of the SAE Fasteners Committee. This Committee is responsible for developing fastener Standards and Recommended Practices that are used in ground vehicle applications i.e., cars, trucks, busses, etc. As for my profession, I am a Staff Engineer in the Engineering and Research Materials Division at - Caterpillar, Inc.

The Society of Automotive Engineers, Inc. (SAE) is a technical society with over 50,000 members worldwide. One of the major programs within SAE is the development and dissemination of voluntary consensus standards. Over 13,000 engineers and scientists volunteer their time and expertise to develop and approve technical standards. SAE develops these standards via the "consensus" method which is accredited by the American National Standards Institute (ANSI). All of SAE Standards and Recommended Practices are submitted to ANSI for adoption as American National Standards.

These SAE standards are designed to advance the state of technical and engineering sciences and the use of these standards is entirely voluntary. SAE does not, in any way, enforce the use of the standards. Through the voluntary process, SAE strives to ensure that the standards are technically sound. This is accomplished by the continuous solicitation of input from industry and government. Membership on SAE standards-writing committees is open to all technically competent individuals. The composition of the committees shall attempt to attain an equitable balance of representation so as to provide a competent and authoritative committee. No single interest shall dominate. In considering the equitable balance of a committee, the individual's point of view as a producer, user, consumer, or regulator is considered. Any person who is or may be directly and materially affected by any proposed SAE committee activity, may request to participate by writing to SAE.

There are two points regarding the question of fastener quality that I wish to address at this time. The first point deals with the issue of whether or not the standards are technically sound. The role of a voluntary standards developing organization such as SAE is to provide the standards and specification documents needed for the full and complete description of fasteners sufficient for design specification; purchasing/procurement; and end-product quality control and assurance. For fasteners, such standards are set forth and cover such essential information and data as materials chemical composition and physical properties (including strength, hardness, etc.), end-product (fasteners) configurations and dimensional specifications, and test procedures to evaluate conformance to the specified parameters. SAE feels that the standards are technically sound, but I want to emphasize that it is the responsibility of the end user to ensure that what they are buying meets the standard. As stated previously, if any individual feels that the technical requirements in a standard need improvement, they have the opportunity to provide input and participate in the review of the standard in question.

Secondly, the concern for fastener quality raises issues that go beyond the voluntary standards system. It is SAE's position that the voluntary standards system is generally successful with input from the affected parties. Going beyond this voluntary system in not an issue where SAE has an opinion. Traditionally, the quality of any purchased product is determined between the buyer and seller and any deviation from this should be carefully considered.

Whether or not a certification law is enacted, the fact remains that communication between the buyer and seller based on complete specifications which rely on factual information and technical data describing the fasteners being purchased is the only guarantee that the product will meet the specification.

Mr. Chairman, let me conclude by saying that SAE's voluntary standards system continues to fulfill its role by gathering technical data and disseminating it to the world.

Thank you for the opportunity to provide our input on this important matter.

hautala.remarks/August 8, 1988

Mr. KANJORSKI. Thank you very much.

Mr. Nicolo?

Mr. NICOLO. Mr. Chairman, I am James Nicolo, Chief of the Test and Evaluation Division, of the Defense and Industrial Supply Center, a primary level field activity of the Defense Logistics Agency.

In my current position, a position that I've held for approximately four years, I am in charge of the test and evaluation function at the center. This function has played a major role in the fastener issue, and I would like to very briefly describe how it operates.

The fundamental concept of the test and evaluation function, T&E, as we call it, is the utilization of a vast network of independent test laboratories located throughout the country. Using this network of laboratories, we place orders for a variety of test projects. These projects include testing to support competition, evaluating deficiency reports from the field, analyzing hazardous waste substances, aiding fraud investigations and assessing the quality of products we procure and supply.

The concept of testing has become a most valuable asset to the Center and to many other activities who have called upon us for support. Using a network of independent laboratories has proven to be extremely time efficient and economical.

To emphasize this point, let me describe how we used T&E in dealing with the Grade B fastener fraud issue.

During 1987, DISC froze its entire inventory of Grade 8 fasteners and began a program to test and evaluate all Grade 8 contracts in storage. In a period of about six months, over 12,000 samples were tested and 1,200 contracts evaluated. This was accomplished by dispatching a team of supply specialists to select samples from depots located throughout the country and provide the samples to designated independent laboratories. Over 30 different labs were used and on the average it took these independent labs nine days to feed the results back to DISC's engineering staff for evaluation.

Now that I have provided you with some background on how test and evaluation operates, I will address issues of concern.

With regard to the adequacy of current standards, in general, all signals indicate that the fastener fraud issues that have plagued this country, and especially the Grade 8 substitution problem, did not emanate from inadequate standards.

The consensus appears to be a situation of inadequate enforcement of standard requirements. To elaborate on this point further, in June 1988, DISC sponsored a tri- service/industry conference attended by hundreds of people from all sectors of the fastener community. The aim of the conference was pursuing fastener quality a mutual responsibility.

Two of the workshops in operation at this conference covered topics that specifically address the issue of specification adequacy. The output of these workshops established that, in general, current specifications and standards are adequate and that any changes required were more of a maintenance type action rather than a major overhaul of current documentation.

With regard to the standardization process, I believe that it has successfully developed and implemented standards that properly describe those characteristics that can be used to assure reliable

fastener performance. Those who are intimately involved in the fastener industry, both manufacturing and using, have little difficulty with understanding and translating these characteristics to intended use.

Mr. Chairman, I know that the principal subject of this hearing centers around two legislative proposals intended to address the serious problem of counterfeit and substandard bolts and screws.

I must point out to the committee that current policy prohibits me from issuing an official Department of Defense position on proposed legislation. I ask that the record show that any statements I may make in this regard are not to be interpreted as the official position of the Department of Defense. Mr. Chairman, that concludes my oral statement.

[The prepared statement of Mr. James Nicolo follows:]

STATEMENT BY

JAMES D. NICOLO

CHIEF, TEST AND EVALUATION DIVISION

DEFENSE INDUSTRIAL SUPPLY CENTER

DEFENSE LOGISTICS AGENCY

BEFORE THE

SUBCOMMITTEE ON SCIENCE, RESEARCH AND TECHNOLOGY

COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY

HOUSE OF REPRESENTATIVES

9 AUGUST 1988

NOT FOR PUBLICATION
UNTIL RELEASED BY THE SUBCOMMITTEE ON
SCIENCE, RESEARCH AND TECHNOLOGY
COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY

PREPARED STATEMENT BY JAMES D. NICOLO DEFENSE INDUSTRIAL SUPPLY CENTER, DEFENSE LOGISTICS AGENCY, DEPARTMENT OF DEFENSE

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE, I AM JAMES NICOLO, CHIEF OF THE TEST AND EVALUATION DIVISION AT THE DEFENSE INDUSTRIAL SUPPLY CENTER, A PRIMARY LEVEL FIELD ACTIVITY OF THE DEFENSE LOGISTICS AGENCY (DLA). I AM PLEASED TO APPEAR TODAY BEFORE THE SUBCOMMITTEE ON SCIENCE, RESEARCH AND TECHNOLOGY TO DISCUSS THE SUBSTANDARD, MISMARKED AND COUNTERFEIT FASTENER PROBLEM. IN YOUR LETTER OF 2 AUGUST 1988, YOU ASKED FOR MY VIEWS AND RECOMMENDATIONS ON CERTAIN ISSUES.

INTRODUCTION

FIRST, I WOULD LIKE TO PROVIDE YOU WITH A BRIEF DESCRIPTION OF THE TEST AND EVALUATION FUNCTION AT DISC, AND HOW IT OPERATES.

THE FUNDAMENTAL CONCEPT OF THE TEST AND EVALUATION FUNCTION IS THE UTILIZATION OF A VAST NETWORK OF INDEPENDENT TEST LABORATORIES LOCATED THROUGHOUT THE COUNTRY TO SATISFY A VARIETY OF TESTING NEEDS. T & E AS WE CALL IT, OPERATES IN A MANNER THAT IS MOST REACTIVE TO ITS CUSTOMERS. FUNDAMENTAL PRECEPTS ADHERED TO INCLUDE RAPID PLACEMENT OF TEST ORDERS,

STRUCTURED TEST PLANS, ON-SITE SAMPLE PROCESSING AND EVALUATION OF TEST RESULTS. THE HEART OF CONTRACT ORDER PLACEMENT IS THE USE OF BLANKET PURCHASE AGREEMENTS (BPA#). THIS CONTRACTING MECHANISM ALLOWS FOR PLACEMENT OF SPECIFIC TASK ASSIGNMENTS WITH ANY LABORATORY IN THE NETWORK (THOSE WHO HAVE SIGNED THE BASIC AGREEMENT). STRUCTURED TEST PLANS ARE PREPARED BY ENGINEERS AND SPECIALISTS IN THE TEST AND EVALUATION DIVISION. THESE PLANS FACILITATE ACQUISITION OF TESTING SERVICES IN THAT THEY PRECISELY IDENTIFY THE TASKS REQUIRED. STRUCTURING TEST PLANS HAS PROVEN TO BE A MOST ECONOMICAL AND TIME EFFICIENT OPERATING PROCEDURE IN THAT TESTING IS DIRECTED TO THE SPECIFIC POINT IN QUESTION AND TIME IS NOT WASTED ON ANCILLARY OR UNNECESSARY CHARACTERISTIC EVALUATIONS.

WITH A NATIONWIDE LABORATORY NETWORK, SAMPLE PROCESSING HAS BEEN SIGNIFICANTLY FACILITATED. SAMPLES FOR TESTING CAN BE TESTED IN THE SAME LOCALE WHERE THE ITEMS ARE STORED, MANUFACTURED OR SUPPLIED.

EVALUATION OF TEST RESULTS IS PERFORMED BY THE TEST AND EVALUATION DIVISION AND DETERMINATIONS ARE MADE ON MATERIAL DISPOSITION, DEVELOPMENT OF TECHNICAL DATA, VERIFYING OR INVALIDATING DEFICIENCY REPORTS AND WHETHER OR NOT CONTRACTUAL REQUIREMENTS HAVE BEEN MET.

DISC's TEST AND EVALUATION DIVISION SUPPORTS A VARIETY OF PROGRAMS INCLUDING SPECIFICATION AND STANDARD DEVELOPMENT, VALUE ENGINEERING, COMPETITION, QUALITY ASSURANCE, HAZARDOUS WASTE ANALYSIS AND INVESTIGATION OF FRAUD ISSUES.

THE TEST AND EVALUATION PROCESS AT DISC CAN BEST BE SUMMARIZED BY DESCRIBING HOW IT IS UTILIZED IN DEALING WITH THE FASTENER FRAUD AND IN PARTICULAR THE GRADE 8 PROGRAM. IN JUNE 1987, DISC FROZE ITS ENTIRE INVENTORY OF GRADE 8 FASTENERS AND BEGAN A PROGRAM TO TEST AND EVALUATE ALL GRADE 8 CONTRACTS IN STORAGE. IN A PERIOD OF ABOUT 6 MONTHS, OVER 12,000 SAMPLES WERE TESTED AND 1200 CONTRACTS EVALUATED. THIS WAS

ACCOMPLISHED BY DISPATCHING A TEAM OF SUPPLY SPECIALISTS TO SELECT SAMPLES FROM DEPOTS LOCATED THROUGHOUT THE COUNTRY AND PROVIDE THE SAMPLES TO DESIGNATED INDEPENDENT LABORATORIES. OVER 30 DIFFERENT LABS WERE USED AND ON THE AVERAGE IT TOOK THESE INDEPENDENT LABORATORIES 9 DAYS TO FEED THE RESULTS BACK TO DISC's ENGINEERING STAFF FOR EVALUATION.

TODAY DISC's TEST AND EVALUATION FUNCTION IS USED TO ASSESS THE QUALITY OF BOLTS AND SCREWS BEING SUPPLIED FOR EACH GRADE 8 CONTRACT. ONCE AGAIN, THE LABORATORY NETWORK IS UTILIZED AND THE AVERAGE TURNAROUND TIME IS 5 DAYS.

SPECIFIC ISSUES

NOW THAT I HAVE PROVIDED YOU WITH SOME BACKGROUND ON HOW TEST AND EVALUATION OPERATES, I WILL ADDRESS THE ISSUES OF CONCERN. I WANT TO EMPHASIZE THAT MY POSITION ON THESE ISSUES IS PRIMARILY BASED ON MY EXPERIENCE FROM THE TESTING PERSPECTIVE, SINCE THIS HAS BEEN THE AREA THAT I HAVE THE MOST INVOLVEMENT.

ADEQUACY OF CURRENT STANDARDS

IN GENERAL, ALL SIGNALS INDICATE THAT THE FASTENER FRAUD ISSUES THAT HAVE PLAGUED THIS COUNTRY, AND ESPECIALLY THE GRADE 8 SUBSTITUTION PROBLEM DID NOT EMANATE FROM INADEQUATE STANDARDS. THE CONSENSUS APPEARS TO BE A SITUATION OF INADEQUATE ENFORCEMENT OF STANDARD REQUIREMENTS. TO ELABORATE ON THIS POINT FURTHER, IN JUNE 1988, DISC SPONSORED A TRI-SERVICE/INDUSTRY CONFERENCE ATTENDED BY HUNDREDS OF PEOPLE FROM ALL SECTORS OF THE FASTENER COMMUNITY. THE THEME OF THE CONFERENCE WAS 'PURSUING FASTENER QUALITY - A MUTUAL RESPONSIBILITY'. TWO (2) OF THE WORKSHOPS IN OPERATION (SPECIFICATIONS AND STANDARDS AND TECHNICAL INITIATIVES AND CONCERNS) AT THIS CONFERENCE COVERED TOPICS THAT SPECIFICALLY ADDRESSED THE ISSUE OF SPECIFICATION ADEQUACY. THE OUTPUT OF THESE WORKSHOPS ESTABLISHED THAT IN GENERAL CURRENT SPECIFICATIONS AND STANDARDS ARE ADEQUATE AND THAT ANY CHANGES REQUIRED WERE MORE OF A MAINTENANCE TYPE ACTION RATHER THAN A MAJOR OVERHAUL OF CURRENT DOCUMENTATION.

FROM A TESTING PERSPECTIVE, THE FUNDAMENTAL REQUIREMENTS ARE IN PLACE AND THE METHODS DELINEATED ARE NATIONALLY RECOGNIZED AND READILY AVAILABLE WITHIN THE TESTING COMMUNITY.

IN SUMMARY, THERE APPEARS TO BE A NEED FOR SOME STANDARD REFINEMENT IN CERTAIN AREAS. I WILL ELABORATE FURTHER ON THIS POINT IN ADDRESSING THE NEXT ISSUE.

STANDARDIZATION PROCESS

GENERALLY THE STANDARDIZATION PROCESS HAS SUCCESSFULLY DEVELOPED AND IMPLEMENTED STANDARDS THAT PROPERLY DESCRIBE THOSE CHARACTERISTICS THAT CAN BE USED TO ASSURE RELIABLE FASTENER PERFORMANCE. THOSE WHO ARE INTIMATELY INVOLVED IN THE FASTENER INDUSTRY, BOTH MANUFACTURING AND USING, HAVE LITTLE DIFFICULTY WITH UNDERSTANDING AND TRANSLATING THESE CHARACTERISTICS TO INTENDED USE. IN MY VIEWPOINT, HOWEVER, THERE ARE SOME IMPROVEMENTS THAT CAN BE ACHIEVED THROUGH THE STANDARDIZATION PROCESS.

ONE AREA INVOLVES REFINEMENT OF MATERIAL REQUIREMENTS. IN PARTICULAR, SOME CURRENT FASTENER STANDARDS PROVIDE LATITUDE FOR BUYING ACTIVITIES TO DEVIATE FROM THE PREFERRED MATERIAL. NATIONAL MATERIAL STANDARDS SHOULD BE SPECIFIC AND NOT ACCOMODATE NONSTANDARD VARIATIONS.

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ANOTHER AREA THAT I BELIEVE NEEDS STANDARDIZATION ATTENTION IS A RECOGNITION OF EXISTING NATIONAL STANDARDS FOR ASSESSING FASTENER QUALITY. NATIONAL STANDARDS HAVE BEEN DEVELOPED, BUT IT APPEARS THAT INDIVIDUAL USERS PURCHASING FASTENERS DEVELOP THEIR OWN PROCEDURES FOR ASSESSING FASTENER QUALITY. THE ENTIRE FASTENER USING COMMUNITY NEEDS TO 'READ FROM THE SAME SHEET OF MUSIC'.

CIVIL AND CRIMINAL SANCTIONS

THE IMPOSITION OF CIVIL AND CRIMINAL SANCTIONS IS AN AREA THAT GOES BEYOND THE SCOPE OF MY INVOLVEMENT AND CAN BEST BE ADDRESSED BY THOSE ACTIVITIES DIRECTLY INVOLVED WITH THIS PROCESS.

I CAN, HOWEVER, DESCRIBE THE ACTIONS WE'VE TAKEN WITH REGARD TO THE GRADE 8 FASTENER PROBLEM AND PROVIDE THE RESULTS OF OUR ACTIONS.

AT THE TIME WE FROZE THE GRADE 8 INVENTORY IN JUNE OF 87, WE ESTIMATED THAT APPROXIMATELY 30% OF OUR STOCK WAS CONTAMINATED WITH UNAUTHORIZED MATERIAL SUBSTITUTION. THIS FIGURE HELD UP THROUGHOUT OUR INVENTORY ASSESSMENT SO WE CAN USE THIS AS OUR BASELINE FOR MEASURING QUALITY IMPROVEMENTS RESULTING FROM THE ACTIONS WE'VE TAKEN TO PREVENT RECURRENCE OF THE PROBLEM. THESE ACTIONS INVOLVE NOTIFICATION, SPECIAL CONTRACT CLAUSES AND LEGAL PROCESSES.

NOTIFICATION ACTIONS INCLUDE ISSUANCE OF ALERTS USING THE GOVERNMENT INDUSTRY DATA EXCHANGE PROGRAM, TECHNICAL CONFERENCES, CUSTOMER AND KEY OFFICIAL MESSAGES KEEPING THE DEPARTMENT OF DEFENSE COMMUNITY INFORMED OF OUR FINDINGS AND LETTERS TO OUR SUPPLIERS PUTTING THEM ON NOTICE OF OUR PLANS TO TEST THEIR PRODUCTS AND LITIGATE IF NECESSARY.

SPECIAL CONTRACT CLAUSES WERE IMPLEMENTED TO PROVIDE FOR IMPROVED TRACEABILITY THROUGH THE USE OF CERTIFICATES OF QUALITY COMPLIANCE AND THE REQUIREMENT FOR A MANUFACTURER'S

LOGO THAT MUST BE LISTED WITH THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME), AND THE PERFORMANCE OF PRODUCT VERIFICATION INSPECTION PRIOR TO ACCEPTANCE AND SHIPMENT.

LEGAL PROCESSES HAVE INVOLVED DEBARMENTS AND THE PURSUIT OF CIVIL AND CRIMINAL SUITS.

THE BOTTOM LINE HERE IS THAT TESTING OF OUR GRADE 8 CONTRACTS HAS DEMONSTRATED A 0% DEFECTIVE RATE AS COMPARED TO THE 30% BASELINE EXPERIENCED PRIOR TO THE IMPLEMENTATION OF OUR CORRECTIVE ACTIONS.

Mr. KANJORSKI. Mr. O'Grady.

Mr. O'GRADY. Thank you, Mr. Chairman, and good morning ladies and gentlemen. I would like to say before I begin, it's a pleasure to once again appear before this Committee but in a somewhat different role. In the past I have come before you to encourage this Committee to support the preservation of the National Bureau of Standards during difficult times when budget cuts were in the offing. So I'm here for a different reason today, Mr. Chairman. But it is nevertheless to support our colleagues in the National Bureau of Standards.

ASTM is pleased to be here before you today as you review two pieces of legislation, House Resolution 5051 and House Resolution 5120, and as you address the critical problem of counterfeit bolts and fasteners.

We must state as always for the record that ASTM normally does not promote nor does it oppose the passage of legislative proposals in Congress. One exception, however, is that when the society of which we have 32,000 members becomes directly affected, as is in this case, then I am bound to make my views known to the appropriate committee of Congress.

ASTM takes the business of developing standards very seriously, and I thank the Chairman for his earlier remarks on the issues of standards. Our ASTM standards contribute to the defense safety, competitiveness and general well-being of the citizens of this Country because they are used as instruments of trade.

We are well aware, perhaps more than most, of the chaos that can result when our standards are misrepresented or used fraudulently in claims of conformance, and we deplore that. We therefore commend the Congress for its recognition of one of the results of deliberate non-conformance, counterfeit bolts and fasteners.

Now I'd like to make a few comments on House Resolution 5051.

In general, we think the proposal addresses the use of the voluntary standards system properly, and our comments will serve only to clarify certain portions.

It should be understood at the start that ASTM does not inspect anything, it does not test anything, and it does not certify anything. Our only business is voluntary consensus standards. Since the documents represent, our documents represent a voluntary consensus of technology, the society requires neither manufacturers nor testing laboratories to conform to the specifications or accrediting criteria.

At the same time, ladies and gentleman, ASTM does not resist the use of its consensus documents and codes, regulations or laws which render them mandatory. Indeed, there are many, many ASTM standards that are referenced in building codes and other government regulations. On the contrary, we encourage the use of its documents by the government, and that's solely because of their integrity and their credibility and because of the wide range of involvement by all parties of interest, including the government itself. It's part of the concept of ASTM that all parties of interest participate.

House Resolution 5051 rightly contains the understanding that ASTM technical committees are constantly engaged in the refinement, advancement, modification and updating of the technology

contained in this document, and we do indeed make proper provision for amendments as they are required.

Since this proposal also takes into account fasteners of foreign origin, we think it's worthy to note that ASTM documents can withstand potential disputes concerning technical barriers to trade. ASTM standards are distributed and used worldwide. ASTM holds the same position toward foreign manufacturers in laboratories as it does toward domestic ones. The ASTM standard is voluntarily developed and voluntarily used in much the same way as my colleague reported from SAE.

ASTM standards therefore do not represent technical barriers to trade by favoring American industry and, since they are developed in transparency, are not unknown or inaccessible to foreign manufacturers or laboratories. On the contrary, responsible importers understand the marketing advantages of the production of products that conform completely to an ASTM standard.

I have one final comment concerning the definition of the term "voluntary consensus standard". The term voluntary consensus standard has a particular meaning to ASTM, and it warrants mentioning here. It should be clearly understood that there are degrees of consensus in standards writing, and all of them are good. In ASTM we require full consensus standards. A full consensus standards organization such as ours, by our own definition, is one that requires that a balanced group of all parties of interest participate in the development of the standards that affect them, especially those standards that have commercial applications.

This distinction, ladies and gentlemen, becomes very important when the commercial product carries with it the nation's military readiness, the safety of automobiles, aircraft, all sorts of equipment, nuclear power plants and construction projects.

We believe these conditions are far too critical to leave the development of standards to producers alone or the government alone or to the user alone. We also believe these conditions are too critical to be addressed in anything less than in the complete transparency that accompanies the adoption of a full consensus ASTM Standard.

We applaud Mr. Dingell and his staff for the efforts they made over the past to understand the complex and sometimes what would be characterized as an obscure system within ASTM works and for the thoughtful way that Mr. Dingell and his staff have approached a very, very difficult situation. And now a few comments on House Resolution 5120. As with the other bill, these will be restricted only to those elements of the bill that materially affect ASTM. It may be true as stated in the findings of the bill, additional characteristics of bolts may be needed to be evaluated. It may be true that additional test methods are required, that certain factors must be considered.

But, ladies and gentlemen, these hypotheses are purely technical and therefore too important to be decided by opinion without challenge.

First of all, we've made it clear to this Subcommittee many times in the past, ASTM has the highest regard for the work and the integrity of the National Bureau of Standards. I have been before this Committee repeatedly to say that.

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ASTM would not object to any recommendation that the Bureau might wish to make to a technical committee. They do it all the time. In fact, we welcome and we rely heavily on the contributions of its scientists to make many of our technical committees function as well as they do.

This bill, however, proposes a dramatic departure from the partnership that we have built and continue to enjoy with the Bureau as well as with other research institutions.

Perhaps the one single thing that has earned ASTM its reputation for technical excellence, is its unbending principle of consensus. We have steadfastly upheld the principle that no one interest will direct, dominate, dictate or otherwise upset the balance of all interested parties when engaged in their technical work.

We believe that this principle itself is what attracts and permits the scientists of the Bureau to participate and become part of a system that is free from the domination of special interest groups.

Out of this extraordinary freedom of the ASTM technical committee is the right to decide the scope and content of its work and to place upon the National Bureau of Standards, which is basically a research institute, the legislated responsibility to determine the scope of a non- government technical committee or the contents of its documents is to undermine the very nature of the consensus group, a position in which we believe the Bureau in its wisdom itself would have no interest.

We believe that this would serve to compromise the neutrality of the Bureau as well as to deny the political and regulatory detachment a scientific body has every right to expect.

This, then, is the first principle, members of the Committee, that ASTM cannot agree to any technical oversight by anybody. It is this principle that directs the ASTM technical committees to consider any and all recommendations, debate, accept, reject—and reject here is a crucial word in our system—and surrender all individual viewpoints eventually to the technical conscience of the group taken as a whole and then to the society as a whole. It is this very process that the government has come to value because so many of our standards are used in government operations.

It is a particular service we have been privileged to give and we are willing to continue to give to the communities both national and global that use our products for trading purposes. While we are willing to surrender our documents to a regulatory body for its use, we have no desire to become a regulatory body ourselves, however obliquely. And while we reject the notion of the technical oversight by others, we have absolutely no desire to wield it ourselves.

There can be no exceptions, in my view, to the principles which guide our system. If we permit just one exception, the ASTM system will cease to exist, a system of due process that has served the public interest very well for the 90 years of our existence.

Thank you, Mr. Chairman and members of the Committee, for your kind attention.

[The prepared statement of Joseph G. O'Grady follows:]

STATEMENT OF JOSEPH G. O'[illegible]RADY

PRESIDENT OF ASTM

on

H.R. 5051

and

H.R. 5120

Submitted to the Subcommittee on Science, Research and Technology

of the

United States House of Representatives

Committee on Science, Space and Technology

August 9, 1988

Good morning Mr. Chairman and Members of the Subcommittee. ASTM is pleased to be here before you today as you review two pieces of legislation, H.R. 5051 and H.R. 5120, and as you address the critical problem of counterfeit bolts and fasteners.

We must state, as always, for the record, that ASTM normally does not promote nor does it oppose the passage of legislative proposals of the Congress. However, since ASTM, a Society of over 32,000 voluntary members, will be directly affected if either of these proposals succeeds in passage, I am bound by my office to represent and speak for them here.

ASTM takes the business of developing standards very seriously. Our standards contribute to the defense, safety, competitiveness, and general well-being of the citizens of this country because standards are used as instruments of trade. We are well aware, perhaps more than most, of the chaos that can result when our standards are misrepresented or fraudulent claims of conformance are made; and we deplore these actions. We therefore commend the Congress for its recognition of one of the results of deliberate nonconformance: counterfeit bolts and fasteners.

Now we would like to make a few comments on H.R. 5051. In general, we think this proposal addresses the use of the voluntary standards system properly, and our comments will serve only to clarify certain portions.

It should be understood at the start that ASTM is not an inspecting, testing or certifying body. Since ASTM documents represent a voluntary consensus of technology, the Society requires neither manufacturers nor testing laboratories to conform to the specifications or accrediting criteria ASTM develops.

At the same time, ASTM does not resist the use of its consensus documents in codes, regulations, or laws which render them mandatory. On the contrary, ASTM encourages the use of its documents by the Government because of their integrity and credibility and because of the wide range of involvement by all parties of interest, including the Government itself.

H.R. 5051 rightly contains the understanding that ASTM technical committees are constantly engaged in the refinement, advancement, modification, and updating of the technology contained in its documents, and makes the proper provision for documents which are subjected to constant change under our stringent requirements.

Since this proposal also takes into account fasteners of foreign origin, we think it is worthy of note that ASTM documents can withstand potential disputes concerning technical barriers to international trade.

ASTM Standards are distributed and used world-wide. ASTM holds the same position toward foreign manufacturers and laboratories as it does toward domestic ones: The ASTM Standard is voluntarily developed and voluntarily used. Furthermore, since ASTM admits international participants into its development system, foreign manufacturer and laboratory representatives enjoy an equal opportunity to structure the technical documents alongside their American counterparts. ASTM Standards, therefore, do not represent technical barriers to trade by favoring American industry, and since they are developed in transparency, are not unknown or inaccessible to foreign manufacturers or laboratories. On the contrary, responsible importers understand the marketing advantages to the production of products by the ASTM Standard.

We have one final comment concerning the definition of the term "voluntary consensus standards organization." The term "voluntary consensus standards organization" has a particular meaning to ASTM, and it warrants mentioning here. It should be clearly understood that there are degrees of consensus in standards writing. ASTM is a full consensus standards organization. A full consensus standards organization, by our own definition, is one that requires that a balanced group of all parties of interest participate in the development of the standards that affect them, especially if those standards have commercial applications.

This distinction becomes important when the commercial product carries with it the nation's military readiness, the safety of automobiles, aircraft, equipment, nuclear power plants, and construction projects. We believe these conditions are too critical to leave to producers alone, or to the Government alone, or to the user alone. We also believe these conditions are too critical to be addressed in anything less than the complete transparency that accompanies the adoption of a full consensus ASTM Standard.

We applaud Mr. Dingell and his staff for the efforts they made to understand the complex and sometimes obscure system we work in, and for the thoughtful way in which they have approached a difficult situation.

And now, we have some specific comments to make on H.R. 5120. As with H.R. 5051, these will be restricted to those portions of the bill that would directly affect ASTM.

It may be true that, as stated in the findings of the bill, additional characteristics of bolts need to be evaluated. It may be true that additional test methods are required, that certain factors be considered. But these hypotheses are purely technical, and therefore too important to be decided by opinion without challenge.

First of all, and we have made it clear to this Subcommittee many times in the past, ASTM has the highest regard for the work and the integrity of the National Bureau of Standards. ASTM would not object to any recommendations the Bureau might wish to make to any technical committee. In fact, we welcome and rely heavily on the contributions its scientists make to many of our technical committees. This bill, however, proposes a dramatic departure from the partnership we have built and continue to enjoy with the Bureau, and with other research institutions as well.

Perhaps the one single thing that has earned ASTM its reputation for technical excellence is its unbending principle of consensus. We have steadfastly upheld the principle that no one interest will direct, dominate, dictate, or otherwise upset the balance of all interested parties when engaged in their technical work. We believe that this principle itself is what attracts and permits the scientists of the Bureau to participate and become part of a system that is free from the domination of special interest groups. Part of this extraordinary freedom of the ASTM technical committee is the right to decide the scope and content of its work. To place upon the National Bureau of Standards, which is basically a research institution, the legislated responsibility to determine the scope of a non-government technical committee or the content of its document is to undermine the very nature of the consensus group, a position in which we believe the Bureau, in its wisdom, would have no interest. We believe that it would serve to compromise the neutrality of the Bureau as well and deny it the political and regulatory detachment a scientific body must have.

This, then, is the first principle: That ASTM cannot agree to any technical oversight by any single body.

It is this principle that directs the ASTM technical committees to consider any and all recommendations, debate, accept, reject -- and reject is a crucial concept here -- and surrender all individual viewpoints to the technical conscience of the group, and then to the Society as a whole. It is this very process that the Government has come to value. It is a particular service we have been privileged to give, and are willing to continue to give to the communities both national and global that use our products for trading purposes.

While we are willing to surrender our documents to a regulatory body for its use, we have no desire to become a regulatory body ourselves, however obliquely. And while we reject the notion of technical oversight by others, we have no desire to wield it ourselves.

There can be no exceptions to the principles which guide our system. If we permit just one exception, that system will cease to exist, a system of due process that has served the public interest very well for the 90 years of our existence.

Thank you, Mr. Chairman, for your time and your attention. I would be pleased to answer questions.

Biographical Summary

Joseph G. O'Grady
President
ASTM

Joseph G. O'Grady was born in North Bergen, New Jersey. He graduated from the College of Engineering at New York University with a B.E.E. in 1954.

O'Grady joined the ASTM staff as executive vice-president in January 1984. He assumed its presidency in June 1985.

O'Grady served on the National Executive Committee of the Consultative Council of the National Institute of Building Sciences from 1981 to 1985, and is currently serving as a member of the Board of Directors of the Institute. He also serves as a director of the Materials Property Council and is a member of the Industry Functional Advisory Committee on Standards, which is jointly sponsored by the U.S. Department of Commerce and the Office of the U.S. Trade Representative.

Prior to joining ASTM, O'Grady served as vice-president of the Public Service Electric and Gas Research Corporation, a wholly-owned subsidiary of PSE&G Company of New Jersey, and directed the activities of the corporate Research and Testing Laboratory in Maplewood, New Jersey. He directed projects on energy conservation, solar demonstration, and related power industry research.

During his tenure at PSE&G, O'Grady served as volunteer member of ASTM on several technical committees, including petroleum and atmospheric analysis. He was elected to ASTM's Board of Directors in 1973 and served as its chairman during 1978-79.

O'Grady is a past director of the American Association of Laboratory Accreditation and past chairman of the Executive Advisory Committee of the Codes and Standards Committee of the Edison Electric Institute.

A registered professional engineer in the State of New Jersey, O'Grady is a member of the National Society of Professional Engineers, the Standards Engineering Society, the Council of Engineering and Scientific Executives, and the Newcomen Society.

ASTM is a management system for the development of voluntary consensus standards for materials, products, systems and services. Currently, ASTM has over 32,000 members from around the world representing industry, governments, academia and consumers. Participation in ASTM is open to any interested party. The Annual Book of ASTM Standards contains over 8,410 test methods, specifications, practices, guides, and definitions developed by ASTM standards writing committees.

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Mr. KANJORSKI. Thank you very much, Mr. O'Grady. I have several questions, including some questions from Mr. Henry, but maybe I could ask first.

Mr. Nicolo, what I gather from your testimony, you are saying that it's not question of establishing standards, it's a questions of enforcement or adherence to the standards, is that it? So that between the two bills that we're considering, H.R. 5120 and Mr. Dingell's bill, H.R. 5051, you would come down on the side of Mr. Dingell's bill, I suppose?

Mr. NICOLO. I guess the best way to address that question, sir, is to describe what we've done since we've had the problem. Maybe there can be a parallel drawn to answer that question.

We have tightened up our procurement policy. We've instituted clauses that now call for better traceability, back to the lot of manufacture. We have clauses that implement placement of the manufacturer's logo on fasteners where it's practical because of size and style.

We have clauses that address test measurement equipment, and in the case of Grade 8 we sample and test each contract. When we sampled our inventory in 1987, we found about a 30 percent defective rate with respect to material substitution. Testing the contracts that have been delivered with these new safeguards, we now have a 100 percent acceptance rate.

We've also taken some actions in debarrments and legal proceedings against those suppliers who submitted counterfeit fasteners.

So from my personal point of view, if you can draw that parallel between some of the features of that bill with what we've done and the dramatic improvement that we've experienced presently, I could see that there are similar conditions in that bill—the accountability, the traceability and the legal issue.

Mr. KANJORSKI. In view of the extensive problems that DISC has had, the experience with the counterfeit and substandard materials, do you see a need for changes to be made in the procurement system regulations or do you think that's been solved now?

Mr. NICOLO. I'm really no in a position to address procurement regulations, sir. I'm not familiar with them. I know they've instituted contract clauses that help us purchase better in terms of the quality of the items.

Mr. KANJORSKI. Well, since 1987 and by the way you have discussed the improvement, do you feel now you've weeded out the counterfeit and substandard materials?

Mr. NICOLO. I feel, sir, that we're not getting those fasteners delivered to us.

Mr. KANJORSKI. On an individual basis, but how about on the armorment itself or the equipment that's purchased by Defense?

Mr. NICOLO. Yes, sir. In the equipment that's delivered, there are also some safeguards taken by that community from the agency. Defense contract administration regions put out technical information guidance to those inspectors in the field. They're keeping a closer eye on documentation in terms of where the fasteners are supplied, who supplies them, and technical reports that are associated with them. I feel comfortable that that side of the house is also taking action to preclude this problem from occurring.

Mr. KANJORSKI. Mr. Henry asked me to ask the question:"What percentage of the substandard bolts you found were of foreign origin?"

Mr. NICOLO. I'll try to answer that best by saying that the only way we would know that they are foreign would be by a symbol that was on the head of the fastener. We don't purchase Grade 8 fasteners from foreign companies, we purchase them from U.S. companies. I think the percentage that we would say we can associate with the manufacturer's logo from offshore would be probably maybe half of that 30 percent. But I'm sure I could obtain a better, more definitive percentage.

Mr. KANJORSKI. Were they concentrated in a few countries, in a few firms, or were they very wide spread?

Mr. NICOLO. The concentration was in, I believe, three particular logos that stood out more than all the rest— KS, H, and FM. Looking at the international guide for symbols we could say that there was a company, or two of them, that were in Japan. You could associate with the symbol if you looked in a book and saw KS, and you say this could have come from that company. We have no absolute certainty that it did, but indications are that symbol may have come from offshore.

Mr. KANJORSKI. How widespread is the domestic fraud compared to the foreign market?

Mr. NICOLO. I don't think, sir, that we've been able to associate the Grade 8 situation to a condition where we could say for absolute certainty that they were supplied by any U.S. manufacturer of fasteners.

Mr. KANJORSKI. Well, what's the answer to the problem?

Mr. NICOLO. There were two situations, again one with symbols, logos. I want to clarify a point. There's two types of symbols we're talking about. There's a grade strength symbol, and all our documentation requires that. Not all of our standards require that the manufacturer's logo be placed on the fastener. We now have that as a contractual requirement and we also use voluntary standards extensively in our system. Some of the military standards do not require a manufacturer's logo. The predominant amount of defective material was associated with the three logos that I mentioned. In a situation where there was no logo on the fastener, it's difficult to say or even associate where they may have come from. In those that had logos, typifying U.S. manufacturers we did not see a counterfeit situation.

Mr. KANJORSKI. Is there any process besides the logo as an identifying feature that you could require—some sort of material to be added to the substance so it would be readily identifiable as to where it was actually smelted or where the material was—

Mr. NICOLO. There are projects that we're pursuing that address the placement of some sort of noncounterfeitable identification on fasteners. One is a labeling technique associated with tamperproof packaging. Another new concept put forth actually imprints some identification on the fastener itself that would be noncounterfeitable and provide total traceability, so claimed by the company that just recently corresponded with us. We will be looking into this aspect.

Mr. KANJORSKI. That would make it somewhat like the dynamite that we have in the country, to identify the actual source in place?

Mr. NICOLO. Yes, sir. There is, of course, cost associated with the addition of those types of requirements.

Mr. KANJORSKI. Is it so widespread a problem that it warrants that additional expense?

Mr. NICOLO. I think from what we've seen on the Grade 8 issue, by instituting those improvements that I mentioned, the better traceability of certification from suppliers back to the origin of manufacture and the lot identification and the other safeguards that we've used, demonstrate at this particular time, that we are getting proper material.

Mr. KANJORSKI. Mr. O'Grady, you obviously are very interested in maintaining the voluntary nature of standards, and in keeping it that way. And I think that that does give flexibility to the marketplace, to be constantly moving rather than freezing ourselves in place. So would it be reasonable to say that you favor Mr. Dingell's bill over the Committee?

Mr. O'GRADY. Yes, Mr. Chairman. I personally favor the Dingell bill over the other. To destroy the fiber of ASTM through a regulatory process involving the National Bureau of Standards, I see as a major event in the history of the voluntary standards system, which system would probably not survive as a result of government oversight.

We seek, we encourage the use of government employees, including the Bureau, including the Environmental Protection Agency, including the Nuclear Regulatory Commission and others who all participate in our process, but no one tries to dominate it. They share their knowledge, they consult with their colleagues from industry and academia, and out of all this flow the kinds of standards which have become recognized as quality documents worldwide. To tamper with that system, Mr. Chairman, I think would be very, very dangerous.

There are a few conditions in H.R. 5051 which probably could be tidied up a little bit, but on balance I think the system could live with H.R. 5051. But I think I may take the opportunity when I get back to beautiful downtown Philadelphia in the great State of Pennsylvania to share my comments a little bit further with you.

Mr. KANJORSKI. We would appreciate that.

Let me ask you, concerning H.R. 5120. If it was understood that the National Bureau of Standards were to participate in a manner similar to the way it now participates, as far as standards committees, would this be a problem or would it solve the problem?

Mr. O'GRADY. If the Bureau was permitted to participate in the system along with conducting an oversight of the system as was mentioned earlier, it would probably create so much anxiety within the technical committee's system structure at ASTM, and we have 140 committees that operate in this transparency and openness, that there would be considerable reluctance on the part of very many members to participate within an agency of government on a free basis of interchange knowing that sometime in the future that very same government may be going to regulate them. So I think it's a dichotomy which does not to me appear to be a solution, at least the way this bill is written.

Mr. KANJORSKI. Little Red Riding Hood would not want to have breakfast with the wolf.

Mr. O'Grady, the Bureau raised a question about Section 7 of H.R. 5120. It was concerned because of the potential liability they feel will be imposed on individuals volunteering to develop these standards. Has ASTM had any concerns about liability issues when developing standards?

Mr. O'GRADY. No, Mr. Chairman, we've never had any concern about the liability raised in the development process of ASTM. Because it's an open process, all the records pertaining to meetings are available to anyone who wishes to come and look at them. Since the meeting is open, anyone can come in an participate. So it is not likely, based on the 90 year history of ASTM, that the issue of product liability, as long as they conform to the rules, would ever be a problem to ASTM.

Mr. KANJORSKI. Maybe I could ask you a similar question, Mr. Hautala. As I asked Mr. O'Grady, does your Society have a preference between Mr. Dingell's bill and the Committee's bill?

Mr. HAUTALA. I think I will defer to Mr. Benedict to respond to that question.

Mr. BENEDICT. Mr. Chairman, the nature of the SAE as a technical society is such that we would be advised that we should not take a position in general terms for or against proposed legislation, but we confine ourselves, if we may, to the discussion of the SAE's role in the voluntary standards system.

Mr. KANJORSKI. How have you participated in discovering counterfeit fasteners? What solutions have you seen?

Mr. BENEDICT. The SAE's involvement, as I understand it, has to do with the SAE as a developer and a source of some of the standards people have had in mind during the discussion this morning. Well those standards in some cases have been alluded to as standards to which a fastener is specified and procured and to which it's alleged to conform, but in some cases does not conform and have the strength specified. However, as you know, the SAE does not have a role in the application or the monitoring or enforcement of the standards.

Mr. KANJORSKI. What percentage of defective fasteners has your Society run across? I mean, is this pervasive problem?

Mr. BENEDICT. Mr. Chairman, that is not an area that the SAE has to with. We don't test or certify conformance of product to the standard.

Mr. KANJORSKI. I guess what I'm saying is, would this come to the attention of the Congress through your Society alone or is this something that would remain out there in existence until someone else raises the issue? How does this issue get raised that we should take some action in regard to how your society looks at it?

Mr. BENEDICT. It has to do with the ongoing process of the technical committees to be assured that the standards that they produce are current and sufficient for the purpose of specifying and procuring the item, in this case, fasteners.

Also, if I may, I would call to mind the point that a person on an SAE committee is there as an individual, not as a representative of an organization or an employer, except in the special way various DOD people participate. So many of these individuals are knowl-

edgeable about what is referred to often as the fastener quality problem. In that sense it becomes relevant to their work to be assured of the adequacy of the standards.

Mr. KANJORSKI. How do you feel that standards should be evaluated? Should the Federal government improve the process of verifying the bolts or the fasteners and, if so, how do they do this to meet the appropriate standard. What would your recommendation be? Do you think criminal legislation, as included in Mr. Dingell's bill is a necessary element?

Mr. BENEDICT. If I may, I would reference a brief comment by saying I feel I would not be properly authorized to speak for the SAE on that point. However, as an individual I do believe that I concur with the consensus of some who have spoken today and many who spoke over a month ago at the quality assurance conference that DISC organized, in that this has to do essentially with a quality assurance requirement where the fasteners would initially be procured from qualified sources where the design specifications and procurement documents would be sufficient to describe what you purchased. Then especially, the quality assurance would be in place so that you know you obtained what you intended to purchase.

But that is my opinion as an individual.

Mr. KANJORSKI. As an individual, do you think the two pieces of legislation we're considering now, once we get the identifying marks and we can trace and we can verify and we have an established recognized standards, do you think we then should go beyond that and have a criminal standard enforcement?

Mr. BENEDICT. That, I believe, is outside the area of my own knowledge or expertise as an engineer. However, I certainly feel, yes, I concur in much that's been expressed. That when a system provides assurance of marking of strength and registration of traceability of source, that that is an important factor in the quality assurance capability.

Beyond that, whether it's done entirely through the voluntary system, or goes beyond it, is a regulated legal requirement. I simply would not be in a position of a judgment on that.

Mr. KANJORSKI. Let me ask an overall question, and anyone on the panel feel free to answer.

How long do you think the counterfeit fastener operation has existed, strictly as it affects this country, and how pervasive is it in the construction industry? For instance, do we worry that some buildings may come unbolted? Are we to worry about some of our airplanes falling out of the sky because their parts will come apart? Just how pervasive is it?

Mr. NICOLO. Sir, if I can comment from this side. I'll address my comments specifically to the Grade 8 issue.

Primarily the items that we procure and supply are for automotive type applications. The percent defective that we estimated was in our inventory when we froze it in 1987 was 30 percent.

Roughly speaking, I would say that some of the contracts go back in time, somewhere between eight and ten years. It's from one of these older contracts that we may have detected that particular material substitution.

Mr. KANJORSKI. That's in the automotive area, or in general?

Mr. NICOLO. Primarily the customers that we supply these fasteners to, I think the figure's around 95 percent are military vehicles relating to automotive type application.

Mr. KANJORSKI. Has anyone discovered these substitute materials in our bridge systems, for instance? Do we have to worry about some of the bolts coming loose on steel? Have you heard anything of that nature?

Mr. O'GRADY. I have heard that.

Mr. KANJORSKI. But basically we're looking at the automobile.

Yes, Mr. Wilson?

Mr. WILSON. Mr. Chairman, I am aware that the State of Louisiana has had a problem with substitution of materials on bolted joints that is highly visible. These happened to be popular. They used a low carbon material, and the bolts that were breaking were substituted or had a high degree of alloy content.

Mr. KANJORSKI. Were those same type of fasteners interchangeable, say, for skyscraper construction too?

Mr. WILSON. They could be used in some applications.

Mr. KANJORSKI. And how far back were these defective materials provided, did they go beyond the eight to ten years?

Mr. WILSON. I really don't know. I don't think anyone really knows. I think we can only adjust back to the oil shortage, when it is anticipated. I don't know a specific day of when the substitutions occurred.

Mr. KANJORSKI. Was this a conscious effort or did somebody sneak into the system with something here? I mean, did these manufacturers and contractors know that this was happening, or is this just somebody that's very clever providing it?

Mr. WILSON. I think it was done deliberately. I think it was done deliberately by people who saw a great opportunity to enrich themselves without taking any particular interest in the engineering and the capabilities of the parts or the structures that these parts were in.

Mr. KANJORSKI. So we are going back to the old days of a heat mixture of concrete in roads. As you know, the expense is about 97 percent of what the best concrete would provide to build an effective road, how we relied.

Does anyone else have any other recommendations other than the two bills that we're comparing? Are we on the right course, or would you say that there's something else that the Congress should be doing? Does anyone have anything to offer on that?

Mr. HAUTALA. Again, I just reiterate what we have done and what the results have been.

Mr. KANJORSKI. Mr. O'Grady, do you think we're safe, we're doing it with the right course?

Mr. O'GRADY. Mr. Chairman, as I said before, I have a need as a result of hearing all this conversation this morning to go back and discuss this with some of my colleagues, and I may very well have some suggestions for you that I would like to reduce to writing and send to you soon.

Mr. KANJORSKI. I think we pretty much have wrapped up the testimony. I would just like to ask the witnesses to make themselves available for additional written questions so that we can have a

complete and thorough record when we move this through to the full committee.

I want to express on the behalf of the Chairman, Mr. Walgren, and the rest of the Committee, our thanks for your coming here and giving us the benefit of your expertise. We hope that we can look forward to your continued cooperation. If you have any statements or questions that you wish to answer or information you can provide the Committee, we certainly look forward to it. Of course, we're going to, on the other hand, send questions to you that we would appreciate answers to. Thank you very much, gentlemen.

[Whereupon, at 12:10 o'clock p.m., the Committee was recessed to reconvene at the call of the Chair.]

APPENDIX

Statement of

George A. Rodney
Associate Administrator for Safety, Reliability, Maintainability and Quality Assurance

National Aeronautics and Space Administration

to the

Subcommittee on Science, Research and Technology
Committee on Science, Space, and Technology
United States House of Representatives

The testimony which follows is submitted in response to a request from the committee to discuss two topics: NASA's experience with counterfeit and substandard fasteners including remedial actions we have initiated to deal with the problem; and then to comment on the proposed bills H.R. 5051 and H.R. 5120.

My testimony is arranged in four parts. Initially, I address the fastener issue and our associated remedial actions. Second, I expand my testimony to include all manufactured parts. Third, I provide the agency's comments on the two proposed bills. And finally, I offer some suggestions for combatting the problem.

To understand NASA's problems and responses to the fastener issue, I remind the committee that counterfeit and substandard fasteners are most susceptible to failure when used in high stress applications or when used at elevated temperatures (above 500°F). Not surprisingly, such conditions represent the typical working environments for the majority of NASA's flight hardware and ground support systems. Consequently, the infiltration of counterfeit and substandard fasteners into the U.S. supply system poses a major problem for us. This problem is exacerbated by the fact that some manufacturers and distributors are supplying certification documentation for their fasteners without performing the necessary and/or appropriate testing to ensure compliance with contractual specifications or contractually invoked standards.

To preclude any possible problems caused by such fasteners which may have inadvertently been used in STS-26 (the upcoming Discovery mission) hardware and other NASA hardware, we initiated a number of remedial and preventive actions. Guidelines were issued to our field installations and their contractors which required them to: survey all fasteners in their inventory and purge those that were suspect; remove all Grade 8 fasteners used

89-698 O - 88 - 4

in high temperature environments and replace them with non-suspect Grade 8 fasteners; remove all cadmium-plated Grade 8 fasteners used in critical torque applications or critical materials compatibility applications and replace them with non-suspect Grade 8 fasteners; thoroughly evaluate the use of all Grade 3 fasteners obtained from the Defense Industrial Supply Center (DISC) and when replacing or using such fasteners perform a dimensional inspection of the threads. To further ensure the safety of the STS hardware, a thorough engineering investigation, analysis, evaluation, and revalidation program was initiated for all critical fastener applications. As a result of this effort, no counterfeit or substandard parts were discovered but we did have to recreate a significant amount of documentation.

Unfortunately, fasteners are not the only parts with which we are concerned. In fact, they are only the "tip of the iceberg" so to speak. Virtually every manufactured part (e.g., electronic components, hydraulic fittings, electrical wire, tubing) being sold suffers from the same situation. The problem is endemic throughout the parts community (manufacturers, suppliers, distributors). Such parts inflict incalculable costs on the country in terms of: premature failures; degraded reliability and quality; additional cost to screen, locate, identify, repair, and replace. The enclosure provides some graphic examples of the insidious pervasiveness of the problem. NASA strongly feels that any corrective action must address the entire situation--not just the fastener issue.

With the foregoing as background, it is now appropriate to specifically address the two proposed bills (H.R. 5051 and H.R. 5120). Given the magnitude of the total problem, it is evident that any corrective action must be judiciously considered. For that reason NASA is of the opinion that both bills, as written, will not achieve their objectives. While on the surface they may appear to be an appropriate response, in reality they will merely impose additional, burdensome, and possibly ineffective regulatory requirements which will be incommensurate with the intended benefits. The existing voluntary standards formulation process, the standards which are produced by this process, the existing testing standards and procedures, and the independent testing laboratories do an excellent job of fulfilling their functions and responsibilities. What is lacking is the enforcement of these standards and testing procedures by the buyers of the parts and by the government agencies responsible for overseeing the effectiveness and performance of these buyers under the terms and conditions of their government contracts. The sad fact is that no matter how much legislation (regulatory or statutory) is passed, those wishing to circumvent it will be able to do so. In reality, the

mechanism for countering the situation already exists in the form of contractual specifications and requirements. If properly written and enforced, such specifications and requirements would preclude the use of counterfeit or substandard parts and also provide the avenues for legal and adverse financial actions against the suppliers of such parts.

A closely related issue is the actual execution of these oversight and enforcement functions. Currently, each procuring government agency and their respective contractors independently perform inspections and, based on these, assess compliance with the contractually invoked standards, testing, and specifications. This frequently leads to redundant monitoring and oversight of the same suppliers and manufacturers, thus creating an inefficient, uneconomical, and counterproductive situation. A possible alternative would be to expand the responsibilities of the Defense Contract Audit Agency (DCAA) and the Defense Contract Administration Service (DCAS) to include standard parts and, further, to provide such services to all agencies where realistically feasible. The committee needs to understand that we have not had an opportunity to discuss this with either the Department of Defense (DoD) or the Defense Logistics Agency (DLA) so we are not sure how they would view such a proposal. We suspect they may not be enthusiastic about such an expansion of their responsibilities and authorities since they have recently suffered funding and personnel reductions which make it difficult to execute their current responsibilities.

If, despite the foregoing, the committee still feels that some type of additional action must be taken, NASA suggests two preferred alternatives to the proposed legislation.

The first alternative would be a relatively simple modification of the federal procurement regulations. Such a modification would require that agencies always incorporate two items in their hardware contracts: 1) specific requirements for independent testing and documentation demonstrating that the parts used by the vendor comply with the standards and specifications which have been invoked by the contract; and 2) severe, mandatory financial and contractual penalties for use of counterfeit or substandard parts. At the same time, Congress should encourage the agencies to be more zealous in pursuing the existing legal remedies currently available to them such as debarment and the standard criminal actions for fraud.

As a second alternative, the committee may wish to discuss with DoD and DLA the possibility of expanding the responsibilities and authorities of DCAA and DCAS to include standard parts and also to provide their inspection and oversight services to other federal agencies. Again, I remind the committee that we have not discussed this proposal with either DoD, DLA, DCAA, or DCAS so we

in no way are implying their approval of or agreement with such a proposal. We are merely suggesting it to the committee as a possible approach which bears further investigation because DCAA and DCAS have many of the networks and mechanisms in place to effectively perform the function. Obviously, two of their major concerns would be their lack of resources and lack of authority to provide such services. They would also be concerned about the diluting effects this might have on their primary missions.

NASA appreciates the opportunity to comment on this proposed legislation.

ADDITIONAL EXAMPLES OF COUNTERFEIT AND SUBSTANDARD PARTS

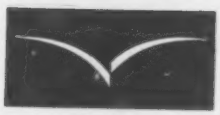
1. The Johnson Space Center has identified several Army/Navy (AN) fittings (adapters, straight pipe to tube, pipe ends, and flares) which were constructed of cadmium-plated steel instead of the corrosion resistent stainless steel which was specified by the packaging part number. In many applications, plated carbon steel does not have suitable properties and when used in fuel, oxidizer, and vacuum systems may create a hazardous condition. Much like bolts, plated fittings cannot always be identified by visual inspection. We are in the process of searching all our supply systems for similar fittings.

2. This past July, the Nuclear Regulatory Commission issued a notice to all agencies alerting them to the discovery of substandard and counterfeit circuit breakers (CBs) that had been purchased for the Diablo Canyon Nuclear Power Plant. This was a typical instance of misrepresented commercial grade electrical components such as relays, trip units, and capacitors. We subsequently performed a review of our CB usage throughout our ground and flight systems and in fact found some suspect CBs.

3. The area of electrical, electronic, and electro-mechanical (EEE) parts has been particularly susceptible to the counterfeit parts problem. In fact at one point, Rockwell International Space Division became extremely concerned about the possibility that equipment furnished or about to be furnished for the Orbiter might contain alleged counterfeit semiconductors, integrated circuits, and other EEE devices. Consequently, they required all Orbiter subcontractors to review their procurement practices and develop policies and procedures to safeguard all their programs against procurement and use of counterfeit devices.

4. A number of counterfeit low power transistors have been discovered. Several of these were identified during the design and construction qualification comparison test when the devices were rejected because they did not meet the qualification die requirements. They were subsequently returned to the manufacturer who in turn determined that they had not in fact manufactured the item which was packaged under their label.

5. Electrical wire procured for use in critical cabling applications was found to have lower insulation quality than specified. This wire was being delivered with the appropriate but falsified certificates of conformance. Because of the potential shorting hazards involved, a full search across all Space Transportation System hardware including ground support equipment had to be initiated. Although no counterfeit wire was found in any NASA application, large costs were incurred.



Stan Siegel
Vice President
Operations
371-8430

September 16, 1988

Mr. James H. Turner, Jr.
Counsel
Committee on Science, Space and Technology
U. S. House of Representatives
2321 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Turner:

Enclosed please find the testimony of the Aerospace Industries Association of America, Inc., (AIA) to be submitted for the record of the Subcommittee on Science, Research & Technology fastener hearing held on August 9, 1988.

AIA appreciates the interest the Congress has taken in this area as it has focused attention on a problem which, left unchecked, could have dire consequences for the nation's infrastructure and military and civil supply systems. Impressive gains have been made by the industry, services, and agencies, and we continue to coordinate our efforts to stop the flow of counterfeit fasteners.

Thank you for soliciting our comments on the legislative proposals. We look forward to continue working with the Congress in the development of fastener legislation.

Sincerely,

Stan Siegel

Enclosures (3)
cc: Stephen F. Sims, Special Assistant, Committee on Energy & Commerce
Robert A. Bergman, Minority Counsel, Committee on Energy & Commerce

TESTIMONY SUBMITTED FOR THE RECORD
HEARINGS ON H. R. 5051 AND H. R. 5120
SCIENCE, RESEARCH AND TECHNOLOGY SUBCOMMITTEE
COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY
U. S. HOUSE OF REPRESENTATIVES

SEPTEMBER 16, 1988

As the major trade association representing the nation's manufacturers of aircraft, missiles, spacecraft and related components thereof, the Aerospace Industries Association of America, Inc. (AIA) appreciates the opportunity to submit comments regarding H. R. 5051 and H. R. 5120.

Given the great variety of aerospace operations performed by AIA's member companies on a day to day basis, the aerospace industry has a vested interest in any legislation which affects the use of fasteners. AIA has been working with the Committee on Energy and Commerce to create legislation which will allow aerospace manufacturers to have confidence in the fasteners they purchase, and some of our concerns have been reflected in H. R. 5051.

However, as indicated in discussions with Science, Research and Technology Subcommittee staff, unique characteristics of fastener use

within the aerospace industry merit additional consideration by the Congress and staff. Accordingly, AIA cannot endorse either H. R. 5051 or H. R. 5120 at this time, but remains interested in drafting legislation which will address the concerns of the industry in this vital area.

There is little debate that the infusion of counterfeit, substandard and mismarked fasteners into the nation's infrastructure and military and civilian supply systems had reached epidemic proportions during the past few years. Once made aware of the problem, however, the services and the Defense Industrial Supply Center (DISC) acted quickly to develop new procurement procedures that would allow for greater accountability and traceability of fasteners. Similarly, AIA member companies have reinforced, and in some cases instituted, procedures to safeguard against the infiltration of substandard fasteners. Unfortunately, as will be discussed later in this testimony, in some cases Federal Acquisition Regulations (FARs) prevent the most effective use of these procedures.

Aerospace manufacturers do not typically use Grade 8 bolts, which have been most widely implicated in examples of manufacturing fraud and counterfeiting. Additionally, aerospace manufacturers do not as a rule purchase directly from fastener manufacturers, as the quantities involved are so small as to not permit economy of scale for the fastener manufacturer. As a result, our members primarily purchase fasteners from distributors or importers who receive merchandise from a variety of

manufacturers, both foreign and domestic. Due to the critical nature of aerospace products and the liability that results from their manufacture, aerospace manufacturers need to have the utmost confidence in the fasteners they use. As a result, aerospace manufacturers routinely sample fasteners as they arrive from distributors, inspecting them dimensionally and testing them for tensile strength, composition, plating, etc. Additional certainty is built into the system as AIA member companies rely upon established customer/merchant relationships they have built over the years. If a distributor is found to be supplying substandard products, the merchandise is returned for replacement or refund. The latter action serves as a statement that the manufacturer will not accept goods from that distributor. Over time, it is assumed such a distributor will be forced to go out of business or find customers who either do not test the product before use or do not care that the material is substandard.

While this system prevents the use of substandard fasteners in aerospace products, it is not the most efficient method of dealing with the problem. Costs associated with testing are borne by contractors, who pass them on to the government as a legitimate cost of getting the job done correctly. Current FARs do not allow contractors to share the results of fastener testing with each other, therefore, a significant amount of time and money goes into duplicative testing. Making this information available on a contractor-wide basis would not only result in cost

savings to the government, but also would allow the fastener distributor market to function more effectively, quickly weeding out those distributors who attempt to fill orders with substandard products.

To help cull unreliable distributors via a legislative vehicle, AIA proposes that distributors be held to the same certification requirements proposed for manufacturers in H. R. 5051. Since more than 80% of the industry's fastener problems are attributable to either distributors or importers, a crackdown on manufacturers alone will not make an appreciable difference to the industry.

An article from The Wall Street Journal dated September 6, 1988 is attached, which clearly illustrates the collusion which may often exist between distributors/importers and manufacturers. AIA believes these malicious relationships would not be affected in any way by the current provisions of H. R. 5051. Implementation of minimum requirements for controls, and enactment of a method to ensure compliance with these controls at the distributor level will make a difference.

We suggest that any auditing and accreditation of distributors would ideally be conducted by a third party, the choice of which is agreeable to all parties involved. While the National Bureau of Standards (NBS), has the requisite technical expertise and currently operates in these established circles, we have been advised that NBS believes such an

arrangement would compromise its current role as a purveyor of standards.

Accordingly we propose an alternative system, for which the Secretary of Commerce would issue those regulations necessary for the establishment of a third party distributor accreditation system. AIA envisions this third party operating in a manner similar to the Underwriter's Laboratory which certifies consumer electronic goods; giving a "Good Housekeeping" seal of approval. Costs associated with operation of such a third party distributor accreditation system should be distributed evenly among importers, distributors and end users. Currently, AIA member companies are attempting to address this problem by participating in a voluntary program which allows process and system surveillance of both manufacturers and distributors.

In order for H. R. 5051 to address aerospace fasteners, a few other changes need to be made. It is important that "manufacturer" is defined in such a way that does not include those persons who, by prior contractual agreement with the end user (fastener installation agency), alter fasteners to meet specified use requirements. Aerospace manufacturers may reconfigure fasteners to meet the terms of a contract, with the express knowledge of the "customer". Legislation should make it clear that such an arrangement does not make an aerospace manufacturer a fastener manufacturer and therefore subject to the reporting and certification requirements contained therein.

6

Fasteners in common use that are manufactured to Army-Navy (AN) and Military Specification (MS) standards, as well as National Aerospace Standards (NAS) standards should be addressed in the legislation, as they are most widely used by the aerospace industry. A listing of the relevant items is included in this document.

Current standards regulating fastener strength and characteristics are adequate. AIA works with several voluntary standard and testing organizations to ensure that aerospace standards for these items are valid and current. Legislation is not necessary to regulate this aspect of fastener use.

AEROSPACE FASTENERS
SAMPLING SPECIFICATIONS AND STANDARDS

MIL-STD-414:	Sampling Procedures and Tables for Inspection by Variables for Percent Defective
MIL-STD-105D:	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-1235B:	Single and Multi-Level Continuous Sampling Procedures and Table for Inspection by Attributes
Handbook H-106:	Multi-Level Continuous Sampling Acceptance Plans for Attributes
ASTM E105:	Probability Sampling of Materials

NAS STANDARDS

NAS 391	Washer
NAS 463	Nut
NAS 498	Bolt, Shear, 95 Ksi FSU
NAS 578	Nut
NAS 620	Washer
NAS 621	Fastener, Titanium Alloy, Procurement Spec for
NAS 1099	Washer
NAS 1198	Rivet
NAS 1289	Pin, Thd Shear, Spec for 156 Ksi Shear Strength
NAS 1413	Pin and Collar, Swage Locking, Spec for
NAS 1515	Washer
NAS 1730	Fastener, Taper Shank
NAS 1900	Rivet, Blind Structural, Lkg Spindle, Procurement Spec
NAS 3350	Nut
NAS 4003	Fastener, Cres, A286, Procurement Spec for
NAS 4444	Fastener, Crimplock, Procedure for

MILITARY STANDARDS

NUTS	BOLTS	WASHER	SOLID RIVET	AN BOLTS
MIL-N-25027	MIL-B-8906	FF-W-92	MIL-R-56	MIL-B-6812
MIL-N-8922	MIL-B-8907	MS 20002		
MIL-N-7873	MIL-S-7839	MS 21206		
FF-N-836	MIL-B-7838	MIL-W-5521		
MIL-N-8984	MIL-B-8839	FF-W-100		
MIL-N-3336	MIL-B-6812	FF-W-84		
FF-N--845	MIL-F-5509			
	FF-S-92			
	MIL-B-87114			
	FF-S-86			
	AMS 7478			
	MIL-B-23964			

THE WALL STREET JOURNAL TUESDAY, SEPTEMBER 6, 1988 47

FAA Is Investigating Safety of Ball Bearings In Some Boeing Craft

By a WALL STREET JOURNAL Staff Reporter

SEATTLE – The Federal Aviation Administration said it is conducting a preliminary investigation into whether 2,000 allegedly counterfeit ball bearings placed on certain Boeing-made 737, 747 and 757 jetliners pose a safety threat.

An FAA spokesman said it hasn't determined if a problem exists in the craft, which were manufactured after July 1, 1986.

Allegations that the ball bearings were counterfeit came to light in a lawsuit filed last July 25 in federal court in Los Angeles by Torrington Co., a Torrington, Conn., bearing-manufacturing unit of Ingersoll Rand Co. of Woodcliff Lake, N.J., against Alliance Bearing Industries Inc. of Van Nuys, Calif. Among other things, the suit charged that Alliance, a distributor, supplied Boeing with bearings from Torrington's Fafnier division that weren't produced by Fafnier.

As previously reported, Alliance President Morton Heller was also named a defendant, along with the company's sales manager and two of its officers. An attorney for all of the defendants had said the alleged counterfeit bearings were mislabeled and shipped to Boeing by a former salesman for Alliance who was fired for misconduct last year.

Boeing Co. said it sent out an advisory on the bearings to the airlines that fly its planes. In the advisory, Boeing said it installed bearings received from Alliance from April 1986 through last January on all of its then-current models. Boeing said it is investigating how the bearings were used on its planes. So far, Boeing tests of Alliance-provided bearings "have indicated they are acceptable for use in currently identified applications and no application has been determined to be safety-related," a spokesman said.

American Association For Laboratory Accreditation

August 8, 1988

Honorable Doug Walgren, Chairman
Science, Research and Technology Subcommittee
House Committee on Science and Technology
U.S. House of Representatives
Washington DC 20515

Dear Chairman Walgren:

The American Association for Laboratory Accreditation (A2LA) herein states its position on two bills before the Subcommittee relative to metal fasteners and bolts: H.R. 5120 and H.R. 5051.

A2LA is a not-for-profit, nongovernmental public service organization for formally recognizing competent testing laboratories. Our system is based on international standards for laboratory quality and on competence of the laboratories to meet these international standards and to perform the tests and types of tests included in their scopes of accreditation. We have over 150 members and have accredited over 130 laboratories in 28 states.

I have managed laboratory accreditation systems, including the National Voluntary Laboratory Accreditation Program (NVLAP) at the National Bureau of Standards, for over ten years and offer my comments based on this experience.

1. NBS Survey and Evaluation of Existing Standards. H. R. 5120 would regulate the voluntary standards organizations by making NBS responsible for evaluating standards developed by consensus in not-for-profit, nongovernmental public service organizations. Use of NBS technical findings are often fundamental in arriving at these voluntary consensus standards. NBS participation in the standards development process is always welcome. But, we do not believe that NBS has the combination of technical and economic qualifications needed to make final judgments on this important economic matter. In addition, this responsibility would place NBS in a position of judging standards it had a part in developing, overriding consensus as it were. We believe that the problem with fasteners is not so much that the existing standards are inadequate but that conformance to them was not established. H.R. 5051 is much more responsive to the need while formulating a simpler, less expensive solution.

2. Accreditation of Laboratories. H.R. 5120 very simply states that NBS is to accredit "..laboratories for the testing required by the standards..". It does not recognize the distinction between laboratory accreditation and product certification with associated labeling which is so well described in H.R. 5051. It also sets NBS up as a regulatory agency; in effect, no laboratory would be able to do metal fastener testing unless it receives government approval

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from NBS. In the health care testing area particularly, the Congress has shown an awareness of the competence of the nongovernment, professional society sector to manage these kinds of accreditation systems. Even in the weights and measures area, where NBS has obvious responsibilities, this kind of control is not exercised by NBS. In short, there is no need for NBS to establish a laboratory accreditation program in a testing area in which a non-profit, non-government, professional membership organization (i.e., the organization that I represent -- the American Association for Laboratory Accreditation) already exists and accredits metals testing laboratories.

We urge support H.R. 5051 over H.R. 5120. A public private sector partnership as described in H.R. 5051 is a much more effective way to meet the need.

NBS is a national resource when it comes to fundamental standards of measurement. Its scientists are focused on basic research to improve the fundamental measurements. We typically require NBS calibrations of measuring equipment to these fundamental measurements as evidence of good testing practice. But NBS has neither the commercial skill nor the staff necessary to manage or control product testing which is based on many thousands of commercial test methods. If the Congress should elect to pass H.R. 5120, then it should recognize NBS limitations and take appropriate action to make NBS a full-fledged regulatory agency with appropriate economic as well as technical staff.

Very truly yours,

John W. Locke

John W. Locke
President

American Association For Laboratory Accreditation

August 31, 1988

Honorable Doug Walgren, Chairman
Science, Research and Technology Subcommittee
House Committee on Science and Technology
U.S. House of Representatives
Washington DC 20515

Dear Chairman Walgren:

The American Association for Laboratory Accreditation (A2LA) would like to follow up its August 8th letter commenting on H.R. 5051 and H.R. 5120 before your Subcommittee and particularly to respond to the testimony presented by the National Bureau of Standards (NBS) relative to metals laboratory accreditation at your August 9th hearing.

A2LA normally does not promote nor does it oppose the passage of legislative proposals of the Congress. However, since A2LA would be directly affected if either of these pieces of legislation become law, I am bound by my position to present A2LA's views.

A2LA is a not-for-profit, nongovernmental, public service organization dedicated solely to administering a nationwide, broad spectrum, laboratory accreditation system. Membership in the Association is open to any individual, institution or corporation interested in supporting the recognition of competent testing laboratories. Our system is based on international standards for laboratory quality and on competence of the laboratories to perform the tests and types of tests included in their scopes of accreditation. We have over 150 members and have accredited over 130 laboratories in 28 states, Guam and Canada.

We would like to clarify the issues relating to laboratory accreditation.

Difficulty and Cost of Accrediting Metals Testing Laboratories

In its written testimony, NBS stated:

> "If it is determined that additional test methods are needed, the laboratory accreditation program would be delayed until the tests are developed. . . . Section 3(a) [of H.R. 5051] allows the manufacturer to choose the standards and specifications to which his fasteners conform. This requirement will make it difficult to set up the laboratory accreditation system required by Section 3(d). Laboratories would not know for which standards and specifications they should apply for accreditation. Forcing laboratories to be accredited for all possible fastener standards and tests would be unreasonable. An accreditation program requires specific, technically valid standards and tests, known in advance so that a laboratory's competency can be judged before accreditation is granted."

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Accrediting laboratories for the variety of metals tests is not as difficult as NBS suggests. A2LA already accredits laboratories for various existing metals test methods. Laboratories are not "forced" to be accredited for all possible tests. They are accredited for their specific capability if it is only one test or several dozen tests. As new standard test methods are developed, A2LA easily accommodates them in its accreditation process. To suggest that the whole program would be unreasonable or would have to be delayed until all test methods are developed or known demonstrates a lack of understanding of how to administer an effective, practical system of laboratory accreditation. It is just this kind of NBS logic which led to NBS requiring over $2,500,000 before it could develop an asbestos laboratory accreditation program for EPA (and that for only two test methods).

Accrediting Accreditors

In its written testimony on the issue of approval of laboratory accreditation systems, NBS states, "We feel such regulatory oversight by the Federal government over the voluntary standards process is undesirable and especially inappropriate for NBS which does not issue or implement regulations." In his oral testimony, Raymond Kammer, Deputy Director of NBS, stated, "My view is that it is not a good idea to accredit accreditors." There are several reasons why this testimony is misleading:

1) The NVLAP documentation is included in the Code of Federal Regulations and the regulations therein issued are in fact implemented. NBS has in fact issued and implemented regulations on the accreditation of asbestos laboratories. The legislation effectively mandates NVLAP accreditation with no alternatives. In this sense, the legislation is highly regulatory and NBS is, in effect, a regulatory agency.

2) NBS is ignoring its own policy as stated in its March 5, 1985, Federal Register notice of laboratory accreditation guideline implementing federal standards policy (see enclosure). The notice states, "Federal agencies are urged to consider this guideline when . . . choosing laboratory accreditation systems for use in fulfilling their programmatic responsibilities." It further states, "The Federal guideline adopted by the ICSP [Interagency Committee on Standards Policy] is set out in ASTM Standard E-994-84, "Standard Guide for Laboratory Accreditation Systems." NBS could use its own guidance to recognize other accreditation systems instead of developing programs such as its construction materials program which is directly competitive with A2LA.

3) NBS over the years has indicated that the recognition of other accreditation systems is beyond its capability; there are no objective standards. Yet it recognizes foreign systems. Further, as early as the Clinical Laboratory Improvement Act of 1967, the Congress has recognized the desirability of a Federal agency accepting the findings of a another laboratory accreditation system. Over the years, the Health Care Financing Administration has recognized over 6 separate laboratory accreditation systems operated by professional associations similar in nature to A2LA. There are objective standards, another Federal agency is already

using them and has been using them for over 20 years. NBS itself is using some form of standard to recognize other foreign systems.

4) NBS implies that the task of accrediting accreditors is an expensive process, yet it already recognizes foreign laboratory accreditation systems through its bilateral, mutual recognition agreements with Australia, New Zealand and the United Kingdom. Who paid for these recognitions? Why are not the same recognition accords granted to domestic laboratory accreditation programs at the same price?

Inasmuch as NBS shows reluctance in moving forward on this important program, we recommend that the private sector be utilized under the oversight of an economic policy unit of the Department of Commerce. The task is not a large one that would require significant resources. For an estimate of what would be involved, NBS should be asked how much time and resources were required to establish and maintain bilateral, mutual recognition agreements with three foreign laboratory accreditation systems.

Another possibility exists: the Congress could consider adopting the Federal Standards Policy and recognize one laboratory accreditation organization -- the American Association for Laboratory Accreditation -- that already exists and is serving the need. Since A2LA is a not-for-profit, public service organization, open to anyone to join and take part in its affairs (like the American Society for Testing and Materials), such an action would neither be precedent setting nor a restraint of trade. Other countries' governments have taken similar action. As an example, we point to Australia's National Association of Testing Authorities (NATA) whose government's Minister for Industry, Technology and Commerce issued the following statement on 22 February 1988:

> "An important part of the accreditation infrastructure is a national system of laboratory accreditation. The National Association of Testing Authorities operates a registration scheme which enables customers and other interested parties such as government agencies to have confidence in test results produced by laboratories accredited under the scheme. This scheme is particularly important in enabling customers and others to have confidence in test results. Where assurance is obtained in this way, duplicate testing is avoided.
>
> In accreditation as in standards, the existence of a nationally recognized peak organization is desirable. The National Association of Testing Authorities has won a high level of recognition nationally and internationally. The Association will receive endorsement as a national accreditation body through a Memorandum of Understanding with the Government as recommended by the Foley Report.

We also point out that the U.S. Defense Industrial Supply Center (DISC) has provided modest financial support to enhance our program and uses our accredited metals laboratory test data to support its metal fastener procurements. The Department of Defense has accepted A2LA under its program for recognizing voluntary non-government standards bodies. The Department of Housing and Urban Development accepts our accreditation of laboratories that test paint for its procurements under the Federal Housing Authority.

If H.R. 5120 passes in its current form (requiring the establishment of an NBS metals laboratory accreditation program), it would effectively destroy our existing metals program just as the AHERA legislation has destroyed our program on asbestos by requiring NBS accreditation of asbestos testing laboratories.

We have no such concerns about passage of H.R. 5051. We believe H.R. 5051 is a reasonable piece of legislation that recognizes and addresses the issues clearly, yet minimizes government intrusion into the marketplace.

Very truly yours,

Peter Berger

for John W. Locke
President

Enclosure

National Bureau of Standards

Accreditation Guideline Implementing Federal Standards Policy

AGENCY: National Bureau of Standards Department of Commerce.

ACTION: Notice of Laboratory Accreditation Guideline Implementing Federal Standards Policy.

SUMMARY: This notice announces the approval by the Secretary of Commerce of a Federal guideline on the selection and use of laboratory accreditation systems that has approved by the Interagency Committee on Standards Policy. This guideline implements the Federal Standard Policy which is set out in Office of Management and Budget (OMB) Circular A-119, dated October 20, 1982 (47 FR 49496-49499, November 1, 1982).

Interagency Committee on Standards Policy (ICSP) was established by the Secretary of Commerce under paragraph 8 a(2) of OMB Circular A-119. The guidance document adopted by the ICSP is a voluntary consensus standard developed and published by the American Society for Testing and Materials. This standard is described later in the notice.

Federal agencies are urged to consider this guideline when developing and implementing their system for accrediting laboratories or when choosing laboratory accreditation systems for use in fulfilling their programmatic responsibilities.

FOR FURTHER INFORMATION CONTACT: Contact Dr. Stanley L. Warshaw, Director, Office of Product Standards Policy, National Bureau of Standards, Gaithersburg, MD 20899 (301-921-3751). Dr. Warshaw chairs the Interagency Committee on Standard Policy.

Dated: February 28, 1985.

Ernest Ambler,

Director, National Bureau of Standards.

Federal Guideline for Recognizing Laboratory Accreditation Systems

Introduction

The Federal Standards Policy, as set out in OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Standards" October 20, 1982, published at 47 FR 49496-49499, Nov. 1, 1982, encourages Federal agencies to rely on voluntary standards whenever feasible and consistent with law. Adoption of such standards is viewed as supporting the policy of reliance on the private sector to supply Government needs for goods and services, as set out in OMB Circular A-76.

The Interagency Committee on Standards Policy (ICP) developed, and the Secretary of Commerce approved, two guideline documents pertaining to Federal agency use of private sector certification for determining the conformance of products and services to standards and specifications promulgated by Federal agencies. These documents, "Guidelines for Federal Agency Use of Private Sector Third-Party Certification Programs" and "Guidelines for Federal Agency Use of Self-Certification by Producer or Supplier", were published in the Federal Register at 49 FR 5702-5703, Feb. 15, 1984.

The Interagency Committee has now adopted a guidance document which sets out criteria for recognition of laboratory accreditation systems by Federal agencies. This guidance document was developed by a voluntary consensus committee (E-36) of the American Society for Testing and Materials (ASTM), with input from representatives from several Federal agencies.

The Federal guideline adopted by the ICSP for recognizing laboratory accreditation system is set out in ASTM Standard E-994-84, "Standard Guide for Laboratory Accreditation System." This standard, published by ASTM, is available from ASTM Customer Services, 1916 Race Street, Philadelphia, PA 19103, (215-299-5535). It will appear in Volume 14.02 of the Annual Book of ASTM Standards.

The ASTM E-994-84 standard identifies important features of systems which accredit testing laboratories, inspection bodies, or other organizations involved in testing, measuring, inspecting, and calibrating activities.

Practices addressed in the standard include:

(1) System features including published rules on operations, accreditation criteria, scope of accreditation, proficiency testing, laboratory assessment, revocation and appeal mechanisms;

(2) Assessor qualifications, records, and acceptability;

(3) On-site assessment procedures including assessor responsibility, preparation for assessment, conduct of an on-site assessment, assessor reports, and follow-up assessments;

(4) Proficiency testing including the types of proficiency and the design of proficiency testing programs with specific guidance on sample selecting, handling, and preparation, recording of results, analysis, and reporting questionnaries and their use; and

(5) Guidance on laboratory evaluation procedures, the accreditation decision process, awarding accreditation, and notifying the public.

[FR Doc. 85-5278 Filed 3-4-85; 8:45 am]

BILLING CODE 3510-13-M

Joseph F. O'Neil, *Executive Director*
1725 K Street, N.W. Washington, D.C. 20006
(202) 887-5872 ACILFAX: (202) 887-0021

American Council of Independent Laboratories, Inc.

1725 K Street, N.W., Washington, DC 20006

October 13, 1988

The Honorable Doug Walgren
Chairman
Science, Research and Technology Subcommittee
House Committee on Science and Technology
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Walgren:

The American Council of Independent Laboratories (ACIL) wishes to express its support for H.R. 5051, the "Fastener Quality Assurance Act of 1988," principally sponsored by Mr. Dingell and its opposition to H.R. 5120, the "Standardization of Measurement Act of 1988," principally sponsored by Mr. Roe.

ACIL is the trade association that represents independent, commercial, tax-paying laboratories engaged in testing, analysis, investigation, sampling, research, development and/or consultation for the public in the fields of engineering and the sciences. ACIL currently is comprised of 360 laboratories (of all sizes) that contribute to a $10 billion testing industry. As a substantial contributor to assuring the quality of American life, we pride ourselves as being services-oriented, hi-tech and international in scope.

ACIL has had a long history of experience in laboratory accreditation issues. As one of the founders of the NBS NVLAP program and since its inception, ACIL has struggled with the accreditation issue: one in which the interests of the public are served while at the same time protecting the truly American concept of free enterprise. The amalgam of these concepts is expressed as a "public-private partnership", housed in H.R.5051 but ignored in H.R.5120.

H.R.5120 charges NBS with the evaluation, analysis and development of standards for high strength steel bolts and other fasteners. This places NBS in the position of judging standards to which they were a party to development. This role clearly is at odds with fundamental standards-writing decorum and due

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ACIL Office
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process. In addition, H.R. 5120, establishes another laboratory accreditation program within NBS. Both provisions place NBS in the position of a regulatory agency; however, they are without the budget, resources or technical background to implement the provisions of the bill. In addition, in their testimony, NBS clearly does not desire to accept this responsibility because it is at odds with its enabling statute. Finally, H.R. 5120, if enacted, would come at a tremendous cost to the Federal government.

On the other hand, H.R.5051 understands the concept a "public-private partnership." It allows the Secretary of Commerce to issue regulations to establish the approval of any system of accreditation of laboratories engaged in testing of fasteners if it adheres to the requirements of the appropriate ASTM standard. In fact, a system of accreditation for metals testing already exists in the American Association for Laboratory Accreditation (A2LA). In addition, H.R. 5051 leaves the marketplace in a position to judge this current system of accreditation and find a suitable alternative or to compete with A2LA. The result can only be an even stronger program. Conversely, H.R. 5120 would hand a monopoly to NBS with no incentive (only Congress's stick) to improve.

H.R. 5051 just makes good economic sense and protects the public on an equal basis. H.R. 5120 is costly and provides the public with no more assurances of quality fasteners than the present system - only increased bureaucracy.

We hope that these comments are helpful and we look forward to working with your Committee in fashioning a solution to the problem of counterfeit bolts and fasteners.

Sincerely,

Joseph O'Neil
Executive Director

JON:MMB:lc

STAR STAINLESS SCREW CO.

CORROSION RESISTANT

655 Union Blvd.
P.O. Box 288
Totowa, N.J. 07511
(201) 256-2300
FAX (201) 256-2423

Branches: City of Commerce, CA.
Norcross, GA.
Elk Grove Village, IL.
Houston, TX.
Kent, WA.

August 31, 1988

Rep. Robert Roe
2243 Rayburn Blvd.
Washington, D. C. 20515

Dear Mr. Roe,

Enclosed is a copy of a letter I have sent to Rep. John Dingell. I hope you will be able to help me. The fastener bill, HR 5051, would cause many fastener distributors including myself to do an astounding amount of unnecessary paperwork.

While I understand the need to protect the end user, the government should realize that perhaps 70%-80% of fastener transactions involve very mundane uses such as holding a doll carriage together, and that all users should not be burdened with the expense of this extra paperwork.

I hope to hear from you on this.

Sincerely yours,

STAR STAINLESS SCREW CO.

Wayne Golden

jc
Enc.

STAR STAINLESS SCREW CO.

CORROSION RESISTANT

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P.O. Box 288
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Branches: City of Commerce, CA.
Norcross, GA.
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Houston, TX.
Kent, WA.

August 30, 1988

Rep. John Dingell
2221 Rayburn House Office Bldg.
Washington, D. C. 20515

Dear Mr. Dingell,

I am the owner of one of the largest distributors of stainless steel fasteners in the United States. I am writing to you about the fastener bill, HR 5051.

I would like to tell you the parts of the bill which do not make sense to me. Later in this letter I would like to suggest how the bill might be changed.

First, the parts of the bill that don't make sense:

(A) The purpose of the bill, as I understand it, is to protect the public against substitution of a cheaper product. If that is the case, why exempt fasteners of less than 1/4" diameter? And why exempt most distributors from supplying paperwork to the end user? At least the end user should be informed whether his fasteners are a commercial grade or whether they are backed by traceability and paperwork.

(B) Much of the screw business is composed of $2 and $7 items where people buy screws for their golf cart or a cabinet maker buys 100 wood screws. In my business, I ship over 1,000 items every day worth less than $5, and 3,000 items every day worth less than $30. Nearly all is for resale, so I would have to provide extensive paperwork with each item.

The result would be that my company and others like me would substantially raise our prices on small items to defray the cost of the paperwork, or we would try to avoid the very small orders or small customers.

In my opinion, this bill greatly favors the medium and large size fastener distributors, and harshly discriminates against the small distributor and the wholesaler, such as myself. That is because the extensive paperwork would sharply increase the price

for small quantities of 50 or 100 pieces, which is often bought by the small distributor. The large distributors could increase their buy-quantities, adding screws to their own inventory, so the cost of the paperwork would be amortized over a greater amount.

(C) As I understand it, a copy of the original certification should accompany each line item. This is simply foolish. I sell well over 4,000 line items a day. There is no practical way to make copies of original certifications for each item. The labor and postage alone would raise the cost of a $2 item by 100%-200%.

(D) The extensive use of testing laboratories does not make sense to me, especially when I have been using many of the same reliable suppliers for years. I have 15,000 different items in stock, some of which arrive in quantities of 2,000,000 or 5,000,000 pieces. It is impractical to send 1,000 pieces of the same size for testing or to send 200 different sizes at the same time, particularly when we have absolutely no reason to doubt the chemical and physical reports we get in with the items. My company is a small part of the fastener business (stainless fasteners are only 10% of the total market), but I probably sell 5,000,000 pieces a day on about 1,300 separate invoices. My guess is that hundreds of millions of fasteners are sold each day with 500,000 individual transactions. I don't know what the statistical deviation would be for testing and re-testing, but I am sure there are not enough labs to test, say, 1,000,000 fasteners or even 100,000 per day.

The government should not astronomically raise the cost of fasteners and create a million-dollar testing and re-testing industry. I wonder if there are enough trained metallurgists to open the hundreds of new labs that would be needed.

(E) In the fastener industry, there are many returns from customers and many surplus lots from consumers who have abandoned product lines or gone out of business. The proposed law would present incredible obstacles to these common dealings, because the testing requirements are so onerous. How would I really know, for example, if the customer gave me back the same screws that I shipped him a week before?

Here are my suggestions for your legislation:

(A) You should protect the consumer by including all sizes of fasteners, not just 1/4" diameter and above.

You should develop two categories of fasteners, and every sale to a re-seller or an end user would have an appropriate notice in large print on every box or packing slip or invoice. The first category would be: "COMMERCIAL QUALITY ONLY--NOT INTENDED FOR CRITICAL USE."

There are tens of thousands of fastener sizes, and much of them are already sold as a cheap or common grade. There is no point in spending millions of dollars on laboratory time to test the commonest grades of metal when the consumer may not care. All that's necessary is to warn the consumer about what he is getting.

The second category would be full traceability with chemical and physical analysis---"CERTIFIED FOR CRITICAL USE." The law might require that any fasteners used in critical government applications or those that hold together a certain weight have such traceability.

There is no doubt that more and more consumers will require traceability or their insurance companies will make them require it. This is particularly true if the notice suggested above ("COMMERCIAL QUALITY ONLY--NOT INTENDED FOR CRITICAL USE") is included on fasteners sold to someone building a bridge.

The point is to indeed recognize that most consumers can use simple commercial quality and not waste resources on testing those fasteners. The point is also to recognize that many end users need and want full traceability whether the fastener size is above or below 1/4". A warning in large print to every re-seller and consumer that these are "COMMERCIAL QUALITY" and "NOT INTENDED FOR CRITICAL USE" should allow the public to be protected at a cost that is not outrageous. A more extensive warning on invoices and packing slips to both re-sellers and end users could state that certified fasteners with full traceability are available, and the user should understand that he may have ordered a common commercial fastener.

"Commercial" fasteners could include a "Certificate of Compliance" in which the seller pledges that he has shipped the correct material. This is much easier and less costly than full traceability. Naturally, the law should have heavy penalties for anyone who deliberately fakes either the certificates of compliance for the commercial fasteners or the chemical breakdowns for the critical fasteners.

STAR STAINLESS SCREW CO.

(B) Extensive paperwork with a chemical breakdown should not automatically be sent with each shipment. It is important not to raise the cost for $5 worth of screws by 200% in order to provide paperwork that 70%-80% of consumers may not want. Another approach would be to exempt paperwork on any item worth less than $100 unless the customer requests it.

(C) Legislators should realize the difference between back-up paperwork and full traceability. There is not a major problem in maintaining files with the material analysis from each manufacturer. But when a screw distributor stocks 15,000-25,000 items, the burden of doing extra lab tests, keeping separate lots, and providing elaborate documentation for every sale is impractical and very expensive. There are a few thousand fastener distributors throughout the country, and their shipping departments are often like a small, cramped hardware store. It is important to pass a law that, on the one hand, guards against substitution and, on the other, considers the mentality and operation of a fastener distributor.

Legislators should understand that the day-in and day-out fastener business is filled with $20 orders for garden-variety fasteners, and that HR 5051 would be over-regulating the industry and adding exorbitant costs to all screws.

Many consumers have extremely critical uses, but many put fasteners on the same level as paper clips or office staples, and many are in-between where a simple certificate of compliance would suffice.

Thank you for your time in reading this letter. I hope to hear from you about it, and I hope you pass a bill that protects the consumer and shows some realistic understanding of the fastener business.

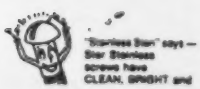
Sincerely yours,

STAR STAINLESS SCREW CO.

Wayne Golden

jc

cc: Rep. Robert Roe
2243 Rayburn Blvd.
Washington, D.C. 20515



DELL FASTENER CORPORATION

91 SOUTHPOINTE DRIVE · BRIDGEVILLE, PENNSYLVANIA 15017

September 23, 1988

The Honorable Douglas Walgren
2242 Rayburn
House Office Bldg.
Washington, D. C. 20515

Dear Mr. Walgren:

I understand Congressman John Dingell and his committee have proposed a bill, H. R. 5051, that will require certified laboratory testing of ALL bolts, nuts, washers, screws and other fasteners sold in the United States. Furthermore, the testing records must be available for a five year period.

Dell Fastener Corporation is a distributor of these items and we object to this bill in the strongest possible way. We stock more than 12,000 different fasteners, probably well in excess of 5,000,000 pieces - can you imagine the nightmare of testing and record keeping this bill will require, to say nothing of the cost? Does Dingell's committee really want laboratory testing on every nut, bolt and screw in a Sears washing machine - or GE radio - or bookcase...?

We are keenly aware of the problem of sub-standard imported fasteners and do our best to stock quality domestic goods. This problem must be addressed but Dingell's solution is an excellent example of government overkill. Most manufacturers are already testing bolts for critical applications - because their best interests are served by producing products that will not fail. Please allow the problem to be solved by business, not another government regulatory tangle. For its part, the Federal government can require any testing for critical uses on the purchases it makes, and it has always had this option.

Yours very truly,

DELL FASTENER CORPORATION

Phyllis S. Swindell

Phyllis S. Swindell
President

CC: Hon. John Dingell

PSS/kk

SRT

10 CAPITOL DRIVE

MOONACHIE, N.J. 07074

UNEEDA BOLT & SCREW CO., INC.

October 18, 1988

Honorable Robert A. Roe
2243 Rayburn House Office Bldg.
S. Capital St. & Independence Ave. S.E.
Washington, DC 20515

Dear Congressmen Roe:

There are in the house two bills HR 5051 and HR 5120 which, because of the vague way they are drawn, are a threat to my business and the jobs of my thirty (30) employees and the welfare of their families and mine.

I urge you to oppose both.

Respectfully,

Larry S. Klein
Sales Manager

Wayne, N.J. Resident

5051 - Fastener Quality Assurance

5120 - Standard measurement

LSK/mmf

RECEIVED
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Committee on Science, Space and Technology

TEL: 201-440-8600 1-800-535-2800 FAX: 201-440-7668

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